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MUSICONNEX

BOOK OF ABSTRACTS

MUSICONNEX

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FOREWORD

Music engagement is a ubiquitous daily resource that can advance a critical capacity in the modern world: our ability to connect with self and others. MUSICONNEX conference celebrates the closure of an ERC-consolidator grant labelled MUSICONNECT, which has been studying music as a facilitator of connectedness in youth, exploring and testing the underlying mechanisms and ways of measuring this phenomenon.

MUSICONNEX conference takes the topic of music and connection to be further developed through scholarly dialogue. Colleagues across the world are joining to share their knowledge, research evidence, and visions for future study. A plethora of on-site and online presentations are addressing the questions of how music creates connection to self and others, how can we study and measure this across mind, body, and varied contexts, and what are the next steps concerning our research and engagement platforms.

From self-regulation to performance, from synchronized movement to meaning-making, and from laboratory to clinical, digital, and everyday settings music is addressed as a behavior and medium that can potentially facilitate connection. Interdisciplinary dialogue is at the core of the conference - we as researchers and practitioners are also creating connections across perspectives and paradigms and building the next levels of harmony in research through our individual voices within MUSICONNEX.

With deep gratitude for my MUSICONNECT team, for MUSICONNEX organizers, and for our conference speakers and participants – let's make this a connection to remember!

PI of MUSICONNECT, Chair of MUSICONNEX,

Suvi Saarikallio

Centre of Excellence in Music, Mind, Body and Brain (CoEMMBB)

University of Jyväskylä

1 KEYNOTES

Choosing and using songs for music listening in therapy and everyday life

Prof. Katrina McFerran

Professor in Music Therapy, Melbourne Conservatorium of Music, Australia

When young people choose to listen to music they initiate a powerful chain of events that links their decisions with context, experiences and outcomes. That highlights choosing songs as an important process warranting attention. This talk will explore the pleasurable and painful experiences of song listening and link them to healthy and unhealthy outcomes in ways that are sometimes counter-intuitive to dominant narratives.

For adult guides who work with young people, this potentially changes the focus of our attention. Instead of relying on the umbrella term of 'music preferences' we might incorporate a more discerning exploration of pleasure and pain, using the lenses of nostalgia and emotional resonance and aesthetics and motivation. In this talk we will unpack the assumption that non-directive choosing is always helpful.

For young people it is the assumption of intentionality that needs further investigation. At this moment in time it is their freedom of choice and intuitive self-care practices that need protection. The greatest threat comes from algorithmic nudges that serve the capitalistic drives of streaming platforms and override the development of good instincts, connecting mind, body and context. However, we should also be careful not to assume that benefits necessarily flow from psycho-educational strategies that undermine the pursuit of instinctual drives such as sensations of pleasure, and equally, pain.

This talk will explore the intersection of healthy and unhealthy uses of music, focusing on the utility of choice in music listening.

Social Bonding in the Audience – How does live music create social connection?

Prof. Hauke Egermann

Professor in Systematic Musicology, University of Cologne

Spatial co-presence between performers and audiences and temporal simultaneity of performance and audience experience have been described as the two main characteristics of a live performance. These two factors allow for performer-audience interactions, which our research has shown to lie at the core of the audience experience of liveness (between performers/the music and audiences, and between audience members). Furthermore, previous research has demonstrated that synchronized movements during engagement with music lead to social bonding between those who move and entrain together. This keynote lecture will present theoretical models exploring how these interactions affect live performance audiences, including the 4E cognition framework, social psychological theories, and emotion induction mechanisms. I will then provide an overview of various methodological approaches to studying audience responses, including findings focusing on subjective, behavioral, and physiological measures. Finally, I will conclude by describing how mutual influences between performers and audiences could be studied in future research to further understand the social bonding effects of the live music experience.

Musical Imagination, Shared Experience, and Connection Across the Lifespan

Prof. Elizabeth Margulis

Professor in Psychology and Neuroscience, Princeton University

Listening to music, people often report being transported into vivid personal memories and imagined scenes. This phenomenon is so commonplace as to often escape notice, but examining it systematically reveals something special about how music connects us to ourselves and to each other. This talk presents findings from a series of studies on musical transportation—the tendency for music to send listeners elsewhere. Using a combination of behavioral methods, neuroimaging, and natural

language processing of free-response data, my collaborators and I have investigated what happens in these moments. We find on the one hand that listeners encountering a piece for the first time tend to independently generate imaginings that converge in surprising ways, but on the other hand that this convergence does not extend across cultural boundaries. The similarities and differences in imaginings cued by the same excerpt provide an opportunity to get behind one another's ears, and try to understand the experiences that led to hearing an excerpt one way or the other. I will discuss extensions and potential applications to this work, with an eye toward understanding music's role in identity formation, social connection, and well-being across the lifespan, and reflect on what it means that an experience that feels quite personal and subjective can actually be broadly shared.

2 ORAL PRESENTATIONS

TUESDAY SEPTEMBER 22

Session 1A - Socio-emotional development

Group-based music interventions for social-emotional development and the need for common conceptual and methodological frameworks

Alicia Lucendo Noriega (University of Jyväskylä), **Joshua Bamford** (University of Jyväskylä), Margarida Baltazar (University of Jyväskylä), Andrew Danso (University of Jyväskylä), Mari Tervaniemi (University of Helsinki), Emily Carlson (University of Jyväskylä), Tanja Linnavalli, (University of Helsinki), Suvi Saarikallio (University of Jyväskylä)

Many claims have been made about the effectiveness of music in the classroom. These studies regularly situate music as a tool to be used for extra-musical ends based upon transfer effects—i.e. that by doing music, children will develop skills in other domains. Social-emotional development is a broad domain that has gained increasing attention as a target for music-based interventions, although there is a tremendous conceptual and methodological diversity amongst the existing literature. This scoping review examined intervention characteristics and operational definitions in group-based music programmes targeting social-emotional development in children aged 2-12. Following double-blind screening, 90 studies were included. Data extraction focused on study design, musical components, and the operationalisation of social-emotional goals. Associations between music approaches and social-emotional constructs were examined descriptively. Substantial heterogeneity in

study design, music approaches and theoretical framing limited comparability across studies. Results indicate wide variation in musical approaches and in the conceptualisation and measurement of social-emotional development, that make comparison and integration difficult. These findings highlight the need for clearer reporting of implementation processes, theory of change, institutional context, as well as recognising the role of all stakeholders and context in the research process. Greater transparency in reporting will enable replication and synthesis of results, and contribute to a more holistic and contextualised understanding of the associations between music engagement and social-emotional development across a diverse variety of approaches, individuals and contexts. At present, conclusive evidence in favour of group-based music interventions for social-emotional development remains elusive.

Keywords: Social bonding, youth, emotion

Conceptualizing and measuring young people's social-emotional development through music: Scoping Review

Dana Swarbrick (University of Jyväskylä), **Armi Soukainen** (University of Jyväskylä), **Margarida Baltazar** (University of Jyväskylä), **Alicia Lucendo-Noriega** (University of Jyväskylä), **Friederike Koehler** (University of Jyväskylä), **Lotta Kourilehto** (University of Jyväskylä), **Henna-Riikka Peltola** (University of Jyväskylä) and **Suvi Saarikallio** (University of Jyväskylä)

Young people's social and emotional development is influenced by many forms of musical engagement. Researchers in the fields of developmental psychology, education, and youth research conceptualize and measure social and emotional development resulting from musical engagement in a variety of ways. In this PRISMA guided scoping review, we aim to understand through which concepts do music researchers study social and emotional development in young people. We searched 5 databases for research on how musical engagement relates to social-emotional development in young people (aged 10-24). Both quantitative and qualitative research was included. 1366 articles were identified and underwent title and abstract screening. Given the volume of research, we narrowed the inclusion criteria to the last 10 years which resulted in excluding 264 studies. 433 studies were full-text screened. 295 studies are currently undergoing data extraction to map their conceptual focuses, frameworks, and measures. Results are forthcoming but we expect that the literature shows that music has both positive and negative relations with social and

emotional development and that researchers employ a variety of frameworks in their approaches. This review contributes to research on how music relates to youth social and emotional development by offering a catalog of existing conceptualizations and measures and providing recommendations for future work in this field. This review will serve as the basis for developing a scale to measure social and emotional skills afforded by musical engagement in young people.

Keywords: socioemotional, development, youth

The musical bridge: A music-based program for promoting emotion understanding for autistic adolescents

Celia Redondo Pedregal (Goldsmiths, University of London) and Pamela Heaton (Goldsmiths, University of London)

Music's unique capacity to evoke emotions makes it a compelling medium for promoting emotional understanding (Koelsch, 2020). For autistic adolescents, whose socio-emotional developmental trajectories are heterogeneous and shape the unique ways of experiencing and expressing emotions, music may offer a space to explore emotions their emotions and connect with others (Heaton, 2024). This study examined a music-based group programme designed to improve emotion recognition (ER) and alexithymia in autistic adolescents, arguing that music's unique non-verbal, emotionally expressive qualities offer a distinctive pathway to emotional learning that verbal approaches cannot replicate (Redondo Pedregal & Heaton, 2021). 62 autistic adolescents (21 females) aged from 12 to 16 participated in a structured music-based group programme, where music conveying five emotions (i.e. happiness, sadness, fear, anger, and surprise) was used to trigger a discussion about how other people express their emotions, and how these apply to personal experiences. This intervention targeted ER across five modalities: static and dynamic faces, verbal voices, nonverbal voices, and gestures. Pre- and post-intervention scores were collected for each modality and for alexithymia. Whole-sample analyses revealed significant improvements across all ER modalities except for gestures. Gender-based analyses were also conducted to explore whether this program is adequate for both autistic males and females. For both males and females, less-verbally able participants seemed to improve the most after the intervention. Across a heterogeneous sample varying widely in language and social abilities, autistic

adolescents benefited from The Musical Bridge, pointing to music's distinctive potential as an inclusive medium for emotional connection.

Keywords: Music, emotion recognition, autism, alexithymia

From Aesthetic Experience to Empowerment: Rethinking Multimodal Music Education

Maria Argyriou (University of The Aegean, School of Humanities)

We rethink multimodal music education by foregrounding the transition from aesthetic experience to youth empowerment and by introducing the Multimodal Music Engagement for Youth Empowerment (MME–YE) model as its central conceptual contribution. Drawing on the philosophical foundations of aesthetic experience and contemporary theories of multimodality, the study conceptualizes music learning as an embodied, culturally situated, and meaning-making process. Building on recent empirical advances in music psychology, the paper positions music engagement as a measurable and context-sensitive phenomenon. Psychometric research, including instruments like the Individual and Social Music Listening Scale (IS-MUS-LI), indicates that music engagement functions across interconnected individual and social dimensions. Concurrently, investigations into the emotional complexity of musical experience reveal the dynamic interaction of affective, cultural, and personal factors in the construction of musical meaning. Against this background, the proposed MME–YE model articulates four interrelated dimensions: (a) aesthetic and embodied musical experience, (b) multimodal pedagogical design, (c) evidence-based engagement, and (d) empowerment outcomes. The model conceptualizes music learning as a recursive and integrative process in which subjective experience, pedagogical mediation, and empirical measurement interact to foster emotional self-regulation, identity formation, social connectedness, and well-being. By positioning the model at the intersection of aesthetic theory, multimodal pedagogy, and empirical research, the study advances a reconceptualization of music education as an evidence-informed and socially responsive practice. The paper concludes by examining the ramifications for intercultural education, inclusive pedagogies, and modern multimodal learning environments.

Keywords: Aesthetic Experience, Multimodal Learning, Youth Empowerment

Session 1B - Musical emotions: Theoretical and psychometric approaches

Are we ready for hypothesis-driven musical chills research? Addressing a weak “derivation chain”

Scott Bannister (University of Manchester) and **Tuomas Eerola** (Durham University/University of Jyväskylä)

Musical chills are a psychological phenomenon described as a strong emotional experience accompanied by goosebumps, shivers or tingling. They are linked to self-transcendental experiences including being moved, social bonding, absorption, and flow. Decades of mostly correlational findings from musical chills research can be characterised by significant variation at all levels of enquiry, including terminology and definitions used, affective, physical and psychophysiological concomitants, and individual differences (de Fleurian & Pearce, 2021). No existing explanation of how music elicits chills sufficiently accommodates these variegated findings.

We argue that these characteristics of musical chills research are symptomatic of a weak “derivation chain” (concept formation, developing measures, establishing causal models, boundary conditions of a theory, and appropriate statistical tests), required for robust theories and hypothesis testing. We demonstrate shortcomings of musical chills research that limit researchers to exploratory correlational studies: Scientific concepts of musical chills lack coherence and differentiation from related concepts; there are no standard measurement approaches for chills; theories of chills lack specific predictive relationships required in causal models; and it remains unclear how musical chills compare to chills in other engagement contexts. Consequently, robust hypothesis tests remain out of reach.

We conclude with suggestions for foundational research to strengthen the derivation chain. These are developed from constructionist emotion perspectives that we propose as a parsimonious accommodation of the variability of data in extant musical chills research.

Keywords: Emotion, Chills, Theory

Proper Measurement of Emotional Episodes: Theoretical Perspectives and Methodological Insights

Connor Kirts (Durham University)

Regardless of whether it is the first or hundredth time listening, people construct contextualised meanings to a piece of music to adapt towards situational demands or to achieve desired goals. Desire to capture constantly updating musical schema is accompanied by ontological implications for popular theoretical and methodological perspectives. Applications of exploratory sampling methods (ESM), for example, have lacked reliable psychometric instruments to depict the emotional episodes people experience with music (Yoon & Rottenberg, 2021). Additionally, traditional epistemological frameworks used to understand emotion in music psychology are too prescriptive to portray any meaningful variation within or between people's emotional episodes (Juslin, 2025). Adhering to a broader paradigm shift (Barrett, 2017), the Episode Model (Eerola, Kirts, Saarikallio, 2025) offers an explanation for how the functional use of music—alongside meaning formation, qualia, attention, agency, preferences, and familiarity—are necessary descriptors to study a person's self-regulatory behaviour across contexts. Addressing the methodological issue, a battery of psychometric instruments have been developed to reliably reflect the variables deemed necessary to capture ongoing experiences people have with music (Kirts et al., 2026). This theoretical perspective and appropriate measures equips researchers with a methodologically succinct application to depict a person's changing, longitudinal experiences with music.

Keywords: Emotion, Self-regulation, Wellbeing

An Empirically Derived Lexicon of Powerful Positive Music Experiences

Guoqing Zhu (The University of New South Wales) and **Emery Schubert** (The University of New South Wales)

Powerful positive music experiences (PPMEs), such as being moved, self-transcendence, chills, and awe, have been theoretically distinguished from more 'mundane' experiences like enjoyment and happiness (Schubert et al., 2017). However, the PPMEs lexicon and its relationship with less intense affective experiences remain unclear. This study examines how listeners describe PPMEs. The aim of the study is to develop a more comprehensive understanding of PPMEs and their

relation to the less intense experiences.

133 university students participated in the study examining the question. Participants rated a theory-driven list of terms incorporating PPMEs (Schubert, 2022), reported terms they would use to describe PPMEs, and provided time points along self-selected music that elicited PPMEs. By combining ratings of PPME terms with analyses of open-ended responses, an empirically grounded lexicon for describing PPMEs is proposed. Preliminary analyses indicates that participants perceive a distinction between PPMEs and less intense experiences. However, the relationship is asymmetrical. Less intense affective states frequently co-occur during PPMEs, but intense experiences do not occur during 'mundane' experiences.

These findings contribute to a more nuanced understanding of the powerful positive experiences evoked by music and provide an empirically grounded self-report lexicon.

Keywords: Empowerment, Emotion

Session 2A - Music performance

Creative musical improvisation increases emotional alignment and cardiac synchrony in performer-listener dyads: A physiological investigation

Ioanna Zioga (National and Kapodistrian University of Athens), Clément Guichet (Université Grenoble Alpes), Caroline Di Bernardi Luft (Brunel University of London), Charalabos Papageorgiou (National and Kapodistrian University of Athens) and Christina Anagnostopoulou (National and Kapodistrian University of Athens)

Human communication relies on the alignment of internal states between individuals. While music is a powerful vehicle for emotion, the specific role of creative intent in facilitating this alignment remains poorly understood. We investigated how different improvisational mandates modulate the coupling of subjective and physiological states between performers and listeners during live music improvisation.

We recorded 37 dyads consisting of a performer (39.14 ± 9.91 years) and a listener (32.06 ± 12.06 years). Performers produced 1.5-minute improvisations under

three instructions: Conventional (familiar/usual), Unconventional (unexpected/un-orthodox), and Creative (imaginative/expressive). We collected continuous arousal ratings, post-trial Likert scales for valence/arousal, and discrete emotion labels. To quantify physiological coupling, we used dual-ECG to calculate cardiac synchrony measured with Phase Locking Value (PLV).

Linear mixed-effects models revealed that creative improvisations significantly enhanced dyadic emotional alignment for both valence and arousal, reducing the emotional distance between performer and listener. Critically, compared to conventional and unconventional mandates, creative trials were associated with significantly higher cardiac synchronization, indicating stronger temporal coordination of autonomic signals.

Mediation analysis showed that the effect of creativity on arousal alignment was partially mediated by a steady, linear build-up of felt arousal in the listener. Furthermore, creative intent increased sublime emotions and reduced unease. Interestingly, interpersonal familiarity and positive mood biased felt valence, but not perceived musical emotion, suggesting that internal experience is modulated by extramusical factors. Overall, creativity facilitates communication by transforming musical information into a shared physiological and emotional experience.

Keywords: Emotion, Social bonding, Agency

Multifactor Model of Vocal Self-Expression in Music Performance

Genia Volovikova (Dragomanov Ukrainian State University)

Vocal self-expression is one of the central aspects of music performance, but it is rarely conceptualized as an integrated phenomenon. Most research on singing tends to examine isolated components of the performing experience, whether expressive communication, physiological mechanisms of voice production, cognitive interpretation, or interaction between performer and audience. At the same time, the singer's internal experience during musical performance remains insufficiently theorized as a holistic process.

This study proposes a conceptual framework for organizing the factors critical to shaping vocal self-expression in music performance. The model has been derived

from interdisciplinary theoretical research on music performance, music psychology, creativity research, and contemporary studies on embodied artistic practice.

A detailed multifactor model describes six groups of factors arising in interaction during vocal performance, which influence the act of vocal self-expression:

1. Emotional-expressive mechanisms (timbre, phrasing, dynamics shaping, vocal gesture);
2. Embodied and psychophysiological variables (breath coordination, resonance, neuromuscular balance, and body engagement);
3. Cognitive-imaginative-reflective factors (interpretation, musical imagery, and meaning-making);
4. Socio-communicative factors (interaction between performer and audience);
5. Motivational-orientational factors (artistic intention, overall motivation, and focus on expressive freedom);
6. Artistic-interpretive factors (stylistic interpretation, performer persona, and artistic identity).

The proposed model is based on the experience of vocal performance and singer training, linking theoretical analysis with artistic practice. It contributes to current discussions on musical expression and performance studies, providing a comprehensive framework for the internal processes of vocal self-expression.

Keywords: Identity, Vocal performance, Self-expression

The Role of Visual Imagery in Communication Between Teachers and Students During Music Performance Teaching

Kexin Qi (University of Sheffield) and **Renee Timmers** (University of Sheffield)

Previous research has suggested that visual imagery (VI) can be a useful teaching strategy in music performance. However, there is still limited research on how VI is used in music teaching from both teachers' and students' perspectives. The purpose of this study was to investigate how VI is used and what functions it serves in music education. An action research project was conducted in one-to-one piano and vocal teaching contexts involving three teachers and eight students. Data were collected through video and audio recordings of 32 one-to-one sessions, three focus groups with each teacher and their students, and 11 follow-up stimulated video

recall interviews. The findings informed the development of a model illustrating how teachers use VI, how students receive, adapt, and reflect on it, and how both engage in teacher–student communication through imagery. VI emerged as a commonly used, multi-strategy pedagogical resource that was integrated with other teaching strategies and adapted to students, music characteristics, and teachers’ personal pedagogical approaches. The analysis suggests that VI supports musical understanding, expression, technical development, and communication, particularly in cross-cultural teaching contexts. Students’ reports further indicate that VI can enhance imagery development, support reflection and practice, and function as a reminder cue during performance. This research contributes insights into the characteristics and functions of VI in music performance teaching and learning, highlighting its potential to support music performance and cross-cultural communication.

Keywords: Visual imagery, teaching strategies, music learning, music performance, music expression

Shared Understanding in Live String Quartet

Tiannan Ye (University of York) and **Andrea Schiavio** (University of York)

Shared understanding (SU) is often theorised, particularly in joint-action research, in terms of shared mental models: overlapping representations of tasks, roles and goals that enable prediction, coordination and efficient teamwork. However, such perspectives may not be enough to capture the fluid and interactive nature of live music-making. Existing research suggests that performers can share across at least three interrelated dimensions: intention, expressivity and emotional experience. While these shared dimensions are crucial for effective music-making, the precise ways in which they contribute to SU in musical contexts remain unclear. As self-organising ensembles with shared artistic responsibility, string quartets offer a well-suited setting to ex SU. To address this, the study asks: (1) How should SU be defined within the specific context of string quartet performance? (2) How can musical moments that are strongly shaped by SU be identified and captured in this context?

In collaboration with the Kyan Quartet, the study will generate data through a qualitative design: I: individual semi-structured interviews elicit definitions of SU and examples of strong SU, focusing on intention, expressivity and emotion. II: a

thematic analysis of the interview data to develop a coding scheme. III: two independent trained coders apply the scheme to performance videos in ELAN. IV: a focus group with the quartet reviews key clips and interpretations for critique. In doing so, the project is expected to provide a foundational SU framework for future empirical studies and to offer an approach that can be extended to other forms of chamber music performance research.

Keywords: Movement, Emotion, Shared understanding

Session 2B - Self-regulation through music

Listening to music for sleep: Results from an ESM study

Rory Kirk (University of Sheffield), **William Randall** (University of Jyväskylä) and **Suvi Saarikallio** (University of Jyväskylä)

Many people listen to music for sleep (Buus et al., 2025), however little is known about the affective experience of listening in this context. We conducted an exploratory investigation of data collected by MuPsych, an app that collects participants' mood, reasons, and aims for listening when they play music on their phone (Randall & Rickard, 2013). 340 cases of 'Going to sleep' were reported from 201 participants (mean age=23.1, 102 female) in studies from 2018-2024. The most frequently reported reason for listening was to relax (31%) and aims to maintain valence (56%), arousal (49%), and emotional state (49%). After five minutes of listening to music, valence significantly increased ($W=1144$, $p>.001$) and emotional intensity decreased ($W=2779$, $p=.046$). These results suggest that participants tended not to seek to alter their current state, but nonetheless felt more positive and less intense after listening to music while going to sleep. This study used an ecologically valid design to target in-situ experiences in this context for the first time using preexisting data. A follow up study will investigate how behaviours relate to sleep health and if or how experiences change for individuals from night to night.

Keywords: Self-regulation, Emotion, Wellbeing

Age and music mood regulation: Declines in strategy use but stability in their underlying functions

Catherine Tan (University of Jyväskylä & University of Cambridge), **Alessandro Ansani** (University of Jyväskylä), **Laura Cirelli** (University of Toronto) and **Suvi Saarikallio** (University of Jyväskylä)

Emotion research suggests that aging is related to changes in the usage of different emotion regulation strategies due to factors like declining cognitive and physiological resources and shifting motivational goals. Music is an accessible and emotive medium that supports emotion management, but has distinct regulatory behaviours—some mirroring general emotion regulation strategies, but others, unique to musical engagement. Saarikallio and Erkkilä (2007) suggest seven music mood regulation strategies (Entertainment, Revival, Strong Sensation, Diversion, Discharge, Mental Work, Solace); however, whether age-related changes are reflected in their usage and their functional mechanisms remains unknown. The current study addresses this gap by asking 247 participants (M age = 41.01 years, SD age = 17.83, range = 18–87) to complete the Brief Music in Mood Regulation Scale and experimenter created items exploring how much music regulates mood through facilitating Bodily, Cognitive, or Social functions for each strategy. Regression models show that participants use music mood regulation strategies less as they age. This trend was observed in all strategies except Revival and Strong Sensation, whose decreases were not significant ($p = .10$ and $p = .05$, respectively). Regarding the functions underpinning each strategy, linear mixed-effect models showed that Bodily functions were responsible for Entertainment and Revival, while Cognitive functions for Mental Work. The remaining strategies were facilitated by both aforementioned functions. Here, age did not change the functions responsible for facilitating strategies. These results contribute and bridge developmental understanding on both general and music-specific mood regulation processes.

Keywords: emotion, self-regulation

Music for crises: effects of crisis dynamics on coping strategies

Niels Chr. Hansen (Aalborg University / University of Jyväskylä) and **Suvi Saarikallio** (University of Jyväskylä)

Young people benefit from music to cope with crisis (Miranda, 2019). Yet, the psychological stressors they face are diverse and, presumably, do not all call for the exact same coping strategies and listening repertoires. Disaster scholars classify crises according to their (i) overall scope, (ii) magnitude of personal impact, (iii) unpredictability, and (iv) perceived control over the situation (Chua, 2023). Music psychologists may benefit from such typology to identify contextually tailored music-aided coping behaviours. 18–30-year-old English-speakers (n=250) self-reported and recalled one personal and one societal crisis via guided imagery. Crises were rated on perceived dynamics (i-iv), musical coping, hedonic and eudaimonic listening motivations (Powell et al., 2023), mood effects, and regulation strategies (Saarikallio, 2012). Music listening generally increased, was perceived as helpful, and had positive mood effects during crisis. Agglomerative hierarchical clustering on dynamics revealed five distinct crisis types experienced by youths: (P)andemic, (R)elationships, (I)dentify, (S)ociety, and (H)ealth. Music was especially useful during P, serving more eudaimonic motivations to achieve diversion, revival, positive outlook, and feeling connected. It preferentially promoted mental work and emotion regulation during R and helped take action during I. Data from Spotify's web API showed coping songs were more energetic and danceable for P, softer and less energetic for R, more acoustic and less broadly popular for I. These results suggest that distinct musics and music uses support specialised musical coping mechanisms depending on the crisis at hand. This new knowledge may contribute to developing personalised, situational recommendations for music-aided crisis coping under different circumstances.

Keywords: Emotion; Self-regulation; Well-being

Music as a Laboratory of Time: Emotional Dynamics, Self Regulation, and Bodily Spiritual Integration

Lukasz Sawicki, Independent scholar

Music is not merely a sequence of acoustic events but a temporal field where tension and release, anticipation and fulfilment constantly interact. Drawing on phenomenological and music psychological literature (Grisey, 2008; Langer, 1953), this paper conceptualises musical listening as a “laboratory of time” – a practice that shapes emotional dynamics and supports self regulation. The experience of melody and rhythm creates a balance between the fleetingness of each moment and the wholeness of form, allowing the listener to engage with transformed,

“redeemed” time (Begbie, 2013). Through gestural structures and patterns of motion and rest, music activates bodily spiritual resonance, facilitating a deeper connection with one’s inner states. This process, described by Brelet (1949) as an “ascetic conversion” of emotions, redirects affect from mundane desires toward an integrated sense of self. Listening, as existential concretisation, becomes a dialogue with sounds and silence, fostering emotional awareness, self connection, and momentary restoration of inner unity. These qualities make music a powerful resource for wellbeing, especially in contexts of sensory overstimulation. The paper argues that music’s temporal dynamics – its capacity to generate, sustain, and resolve tensions – offer a distinctive model for understanding how art mediates emotion regulation and spiritual experience across cultures.

Keywords: Emotion, Self-regulation, Self-connection, Movement, Wellbeing, Culture

Session 3A - Neurocognitive mechanisms and applications

Indian Music as therapeutic intervention for Wellbeing: A Perceptual and Neuro-Cognitive Study

Medha Basu (Jadavpur University), **Kumardeb Banerjee** (Jadavpur University) and **Dipak Ghosh** (Jadavpur University)

With increasing stress and mental-health challenges, wellbeing practices are gaining importance. While pharmacological and psychotherapeutic methods can be costly, music therapy offers a promising, affordable intervention. This study investigates Indian Classical Music (ICM) as a therapeutic tool to enhance mental wellbeing, using both psychological and neural-response experiments, and aims to identify a neural-biomarker for quantifiable wellbeing.

A psychological-survey was conducted with 120 college students, who listened to 30-second clips of Indian Classical Raga (Flute, Sarod, Sitar) and rated 20 moods (both positive and negative) on a 5-point Likert scale, before and after listening. Changes in mood arousal levels due to ICM were analyzed. EEG-recordings were then obtained from 12 of these students both during rest and while listening to the ICM clips. Frontal-Alpha-Asymmetry (FAA), a neural biomarker associated with depression and wellbeing was computed. Higher FAA is linked to greater wellbeing. FAA values during rest and music listening were compared to assess ICM's immediate neural effects.

Survey results showed a significant decrease in negative moods and increase in positive moods after listening to ICM. EEG data revealed a marked rise in FAA during music listening, indicating enhanced wellbeing. ANOVA tests confirmed significant differences between rest and music conditions.

In summary, ICM can induce immediate positive effects on the brain, both perceptually and neuro-cognitively, supporting its use as a scientific musical intervention. Given the link between FAA and wellbeing, ICM may serve as an effective therapeutic intervention for general wellbeing and broader mental health applications, with FAA as a quantifiable neural-biomarker.

Keywords: Wellbeing, Mental health

Pre-stimulus vibroacoustic stimulation modulates oscillatory brain activity during music listening

Nandhini Natarajan (University of Jyväskylä), **Iballa Burunat-Perez** (University of Jyväskylä), **Esa Ala-Ruona** (University of Jyväskylä), **Tiina Parviainen** (University of Jyväskylä) and **Jan Kujala** (University of Jyväskylä)

This study investigated how vibroacoustic stimulation (VAS) alters the neural dynamics of music listening by examining periodic and aperiodic MEG activity under two somatosensory conditions: with and without prior VAS. Music listening engages widespread auditory, motor, cognitive, and emotional networks, and vibrotactile input is known to enhance musical engagement, yet the neural mechanisms underlying these effects remain poorly understood. Forty participants completed two MEG sessions in a within-subject design. In one session, they received 20 minutes of 40 Hz VAS before listening to 10 minutes of self-selected relaxing music; in the other, they lay on the same mattress without stimulation. Oscillatory and aperiodic activity were estimated using DICS beamforming and FOOOF decomposition for the whole music period and for early versus late listening segments.

Across the full listening period, VAS reduced alpha power in the posterior temporal lobe and increased low-gamma power in medial somatosensory and motor cortices, suggesting enhanced cortical excitability and stronger auditory-motor engagement. Over time, both conditions showed increases in alpha and beta power, consistent

with habituation to the musical stimulus, though the spatial distribution differed: changes were widespread across temporal and occipital regions in the NoStim condition but remained localized to temporal areas after VAS. Additionally, VAS uniquely increased temporal-lobe theta power over time, whereas the NoStim condition showed a decrease in the aperiodic exponent, indicating a drift toward greater excitation. Subjectively, participants reported stronger emotional intensity during music listening after VAS.

Together, these findings suggest that VAS induces a more engaged and stable neural state, shaping the temporal dynamics of music processing and enhancing the emotional experience of listening.

Keywords: MEG, Music perception, oscillatory activity

Music-Induced Modulation of Corticospinal Excitability Depends on Timing Relative to the Beat

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Musical rhythms entrain neural activity and modulate the excitability and plasticity of motor circuits. Transcranial magnetic stimulation (TMS) is widely used to probe and modulate corticospinal excitability and has recently been combined with rhythmic music in sensory-entrained TMS paradigms. However, it remains unclear whether the modulatory effects of music depend on the timing of TMS pulses relative to the musical beats.

Here, we tested whether applying TMS pulses at specific timings relative to the musical beats modulate corticospinal excitability. Twenty healthy participants listened to an R&B song while single-pulse TMS was delivered over the primary motor cortex. Stimulation was time-locked to different timings ranging from 200 ms before the beat to 0 ms (on the beat) in 25 ms steps, and 50 ms after the beat. TMS with noise masking was used as a control condition. To assess corticospinal excitability, motor evoked potentials (MEPs) were recorded from a hand muscle using surface electromyography.

Preliminary results showed that compared to control condition, MEP amplitudes increased significantly when applying pulses between 200 ms and 75 ms before, and at 50 ms after the musical beats. No significant modulation was observed when TMS was applied at the beats (0 ms) or 50 ms before them.

These findings suggest that musical beats modulate corticospinal excitability in a timing-dependent manner. The observed temporal pattern of the modulation may reflect predictive sensorimotor processes engaged by rhythmic music. In conclusion, the identification of optimal beat-related timings for TMS delivery provides a framework for novel music-enhanced neuromodulation protocols.

Keywords: Mental health, Transcranial magnetic stimulation, Sensory entrainment

Are you processing me?!: A neural marker of social bonding in joint movement improvisation

Patti Nijhuis (University of Jyväskylä) and **Joshua Bamford** (University of Jyväskylä)

Joint movement tasks, such as dancing, musical improvisation, or manoeuvring heavy objects, require continuous anticipation and adaption to another's actions while dividing attention between self-generated and other-generated movements. This dynamic interplay becomes especially critical in improvisational contexts. Yet the neural mechanisms supporting joint action remain difficult to study because movement perception and production are tightly intertwined in brain activity.

This study 1) disentangles neural responses to self versus other, 2) assesses their integration using EEG hyperscanning combined with frequency tagging, and 3) examines how these neural measures relate to social bonding and individual characteristics.

In three leadership conditions (lead, follow, joint), 64 participants (32 dyads) improvised coordinated forearm movements, attempting either in-phase or anti-phase synchrony. Each participant wore an LED flickering at 5.7 or 7.7 Hz to uniquely tag their movement. Neural responses to self, other, and their integration were quantified as steady-state EEG amplitudes at 5.7, 7.7, and 13.4 Hz, respectively, and analysed using repeated measures ANOVAs. Participants also completed measures of

musical training (GoldMSI), personality (Big Five, EQshort), and social bonding (IOS).

Replicating the previous study, leadership roles modulated monitoring of self- and other-generated movements, but not their integration. Social bonding increased significantly from pre- to post-interaction, and its magnitude was predicted by neural tracking of the other person. This relationship remained robust when controlling for musical training and empathy.

These findings suggest that neural tracking of the other, rather than self-other integration, is a key marker of social bonding during joint improvisation.

Keywords: Joint action, EEG hyperschanning, movement synchrony

Session 3B - Musical Meaning Making

From difficult memories to generational experiences: How Finnish adolescents and young adults conceptualise and experience scary music

Katariina Henttonen (University of Jyväskylä) and **Henna-Riikka Peltola** (University of Jyväskylä)

While music and emotion is a widely researched topic, the research on experiences with music and fear remains elusive. This study investigates how Finnish adolescents and young adults conceptualise and experience scary music and use it in their everyday lives. The qualitative data was collected via four group discussions in Finnish youth centers. Each participant (n=14, mean age=17.78) selected a piece of music they found scary. The tracks were listened to and discussed together. The data was analyzed abductively within frameworks of Theory of constructed emotion (see e.g. Barrett, 2014). The results show that self-selected scary music is linked to the everyday lives of the youth, and can evoke a variety of memories, imagery and feelings from fear to uneasiness, but, when pleasant to the listener, be empowering. The experiences are highly context- and listener-dependent. Scary music is also linked to different everyday life contexts of the Finnish youth: from deeply personal levels to socially shared, even generational experiences. In the light of our findings, scary music can help in e.g. coping with real-life fears or feel powerful, but also be

used maladaptively. Future research should explore the experiences from different ages and cultural backgrounds.

Basslines, Bodies, and Beehive Haircuts: What do people think when they listen to music?

Hazel Aileen van der Walle (Durham University)

Music influences distinct and specific mental content including fictional narratives, autobiographical recall, and visual mental imagery (VMI). These imaginative responses are relevant in specialised contexts like therapy and in understanding everyday cognition and creativity, playing a vital role in memory, attention, and well-being. However, prior research of music-influenced mental content (MIMC) constrains investigation to one isolated thought type, use limited musical diversity, or rely on quantitative predefined ratings, ultimately flattening the complexity of these imaginative experiences. Alternative computational analytic techniques can process large qualitative datasets, but fail to capture contextually-rich and nuanced details available through manual, human-driven qualitative analysis.

To address these gaps, this study employed manual qualitative analysis of participants' free-response MIMC descriptions, examining all reported thoughts rather than isolated or predefined types. Music stimuli, 120 instrumental clips from the MUSIFEAST-17 stimulus set, spanned 10 stylistically diverse genres—Ambient, Classical, Electronic, Film, Funk, Jazz, Metal, Pop, 60s-pop, 80s-pop. A total of 1786 UK and US participants aged 18–75 years ($M = 44.42$) listened to 10 clips (one from each genre) and, if they had imaginative experiences, provided open-text MIMC descriptions.

Rigorous, mixed-method qualitative analysis was conducted on these MIMC descriptions (14099 total), involving multiple coding passes, multi-coder validity and reliability checks, thematic analysis, and co-occurrence network analysis. The resulting thematic framework comprehensively maps the “thoughtscapes” influenced by music and highlights the multi-faceted nature of MIMC, extending beyond traditional focuses like VMI. These insights lay the groundwork for future MIMC research considering the full spectrum and typology of listeners' imaginative experiences.

Keywords: Self-connection, Imagination, Qualitative

Self-reflection in children's musical meaning making: Insights from a qualitative study.

Caroline Owen (University of York) and **Andrea Schiavio** (University of York)

Few empirical studies have explored how young children articulate and interpret their lived experiences with music. In an ongoing three-year longitudinal study, we are investigating how children's musical meaning making evolves developmentally through their verbalisations of lived musical experiences. In the first four of six biannual experiments, children (5-12yo, total=80) listened online to two different sets of experimenter-selected stimuli and were invited to describe feelings or thoughts the music gave rise to.

Data-driven thematic analysis revealed a rich variety of experiences including feelings, imagery, storytelling, memories, inferred musical meaning, and critical opinions, as well as multi-dimensional experiences and existential reflection. Children adopted the viewpoints of multiple protagonists within their narratives, increasingly so with age, reflecting growing awareness of others' perspectives.

Results indicate that children's musical meaning making, like adults' (Owen & Schiavio, under review), is a dynamic process involving exploration of multiple perspectives of self, other, time, place and dimension. Dynamic perspectives and self-reflection suggest that, even for young children, musicking involves a dual intentionality (Høffding & Schiavio, 2021) whereby meaningful exploratory patterns are oriented simultaneously towards the self and the external world.

Keywords: Lived experience, Musical meaning making, Self-connection

Music graduate students' diaries: a hermeneutic-poetic interpretation of identity, emotion, and relationships

Ana Lúcia Louro (UFSM) and **Teresa Mateiro** (UDESC)

This study examines 40 diaries written in 2025 by master's and doctoral students in Music Education, aiming to explore how identity, emotion, and relationships emerge in the writing of formative experience. The diary is approached as a space for elaborating lived experience (Passeggi, 2016), in which academic, artistic, and personal trajectories intertwine through narratives marked by affect, tension, displacement, bonds, and processes of self- construction. At times, these writings

assume an aesthetic-musical dimension; from this perspective, the diary is conceived as a device for embodied inquiry (Bresler, 2004). The study is grounded in two complementary analytical layers: a hermeneutic one, in dialogue with Josselson (2006), focused on the narrative interpretation of meanings, voices, contradictions, and contexts; and a poetic one, grounded in Snowber (2022), focused on sensitive, aesthetic, and embodied ways of expressing lived experience. In this framework, formative experience in postgraduate is understood as a narrative and poetic construction of identity, emotion, and relationships, with diaries read not simply as records of experience, but as forms of writing through which participants feel, interpret, and make meaning of their formation.

Keywords: music education; identity, formative experience; autobiographical writing; embodied research.

3 POSTERS 1

Posters Session 1

Understanding how people share musical experiences

Eun Ji Oh (Georgia Institute of Technology) and **Claire Arthur** (Georgia Institute of Technology)

Intense emotional responses to music may prompt individuals to seek recognition of these meaningful experiences. Despite the prevalence of sharing musical experiences in everyday life, little research has directly examined this phenomenon. Exploring the musical, emotional, and social contextual factors underlying this sharing may deepen our understanding of how music becomes socially communicated.

To the best of our knowledge, this is the first study to investigate the social sharing of inner experiences related to music listening. Specifically, we address the following questions: (1) How common and natural is the sharing of musical experiences as a social phenomenon? (2) In what ways do individuals share their musical experiences? (3) What motivates individuals to share these experiences with others? (4) What characteristics of music elicit the urge to share inner experiences? and (5) Do individual differences or contextual factors influence the propensity to share such experiences?

We are conducting a large-scale exploratory study assessing participants' demographics, musical background, sensitivity to musical reward, personality traits, and sharing-related behaviors. We examine whether listeners' emotional valence and intensity, familiarity, social context (e.g., listening alone vs. with others), and

listening situations are associated with their desire to share experiences. To distinguish between sharing inner experiences and sharing music itself, parallel questions assessing music-sharing behaviors are included, with block order randomized. Data collection is underway and is expected to be completed by April 2026.

Keywords: Social Interaction, Sharing Musical Experiences, Emotion

Music and wellbeing: perceptions and experiences of teenage students in a Technology Institute in Brazil

Michal Siviero Figueredo (Federal Institute of Bahia) and **Diana Santiago** (Federal University of Bahia)

An ethnographic case study was designed, aiming to understand the impact of music experiences on high school freshmen students enrolled in music classes at the Federal Institute of Bahia, Salvador Campus, Brazil, in 2025. 37 students out of the 72 in the sample answered a questionnaire, and 19 were interviewed. 51.4% came from public schools and 45.9% from private schools, where Visual Arts classes were prevalent. 16% of the sample declared that their artistic abilities were developed in their art classes, 40.5% learned from the internet, and 10.8% from friends, school projects, or their communities. They listened to various popular music styles, and 34 students declared that music contributes significantly to their daily wellbeing. Regarding ways of listening to music, 31 stated that they do so daily through their cell phones with headphones, with Spotify and YouTube being the most accessed channels, highlighting the view of music as something essential, daily, and personal, with a strong emotional and psychological impact. 82.5% reported feeling some discomfort when listening to music they dislike, whether emotional, physical, or related to boredom/irritation. Regarding the contributions of the Arts discipline, 40% of the responses were related to relaxation, stress relief, and the promotion of wellbeing; 18.4% to emotional expression and self-knowledge; and 13.2% to creativity and artistic learning. Group performance and creation activities were chosen as the most relevant because they contribute significantly to individual and collective wellbeing. Although partial (interviews lacking analysis), the results highlight the importance of music instruction in a technology school.

Keywords: Wellbeing, Youth

Investigating Practice Diary Use and Its Influence on Musicians' Self-Regulated Learning and Practice Behaviors

Peter Weinert (Kansas State University) and Matthew McGrory (Garden City Community College)

Self-regulated learning (SRL) is controlling one's cognition, metacognition, and behavior to meet learning goals. SRL contextually occurs over three cyclical phases, often during individual musical practice. Osborne et al. (2021) found that a practice diary increased self-reported SRL in advanced collegiate musicians; however, the impact on non-advanced students is unclear. Since many teachers utilize support structures in practice (e.g., diaries) to improve practice (Weinert, 2025), investigating the effect of a practice diary on SRL would have theoretical and practical implications. This longitudinal study explores the impact of practice diaries on musicians' observed practice behaviors and reported SRL.

Participants (N=7) were students at a United States community college. Community college music programs in the United States are typically a transition between secondary and advanced musical studies. Participants were recorded practicing before immediately completing a video debrief, during which participants explained learning processes from the practice session. The following week, a researcher provided information regarding effective SRL and utilizing a practice diary. Over the next ten weeks, participants completed a practice diary created by Osborne et al. (2021) to track and improve SRL. Finally, participants were again recorded and completed a video debrief examining learning processes.

Data analysis is ongoing and will be completed prior to presentation. Data sources include completed practice diaries, recordings of practice sessions, and video debriefs. Preliminary results suggested no systematic changes in SRL, with participants displaying limited self-regulation. Results will contribute to our understanding of the theoretical and practical implications of practice diaries for intermediate musicians.

Keywords: self-regulation

Listening with the body: how contact with dance transforms Pianistic interpretation

Giulia Persi (Conservatorio Luca Marenzio Brescia)

Background — Research on pianistic interpretation has examined the performer's body—technique as gesture, the instrument–body relationship, embodied music cognition (Leman, 2008; De Souza, 2017)—yet almost exclusively from within musical practice. Choreomusicology has analysed the music–dance relationship (Jordan, 2000) from the standpoint of the work, the choreographer, or the spectator. While dance shapes how audiences perceive music (Krumhansl & Schenck, 1997), its influence on performers' interpretative practices remains little studied—nowhere more visibly than in the under-theorised figure of the dance-class pianist (Davidson, 2021).

Aims — Taking the dance-class accompanist as the figure most immersed in movement, this study reverses the usual question: not how the pianist serves dance, but how sustained contact with dance transforms a pianist's interpretation. The autoethnographic subject is the researcher herself, a concert pianist.

Main Contribution — Conceptually, it proposes dance accompaniment as a privileged site for studying how interpretation is shaped through engagement with movement. Methodologically, it applies an autoethnographic, practice-as-research approach (Borgdorff, 2012) to piano interpretation, combining ethnographic fieldwork—a workshop for dance accompanists and observed technique classes—with a practice-based experiment: comparing Bach's Preludes in C minor and F minor before and after preparing it with a contemporary-dance choreography created to that music, tracing changes in phrasing, timing, dynamic weight, and articulation.

Implications — Treating dance accompaniment as a laboratory for piano interpretation, the study argues that musical interpretation is not only a textual or cognitive act but a bodily and relational practice, with implications for performance research, artistic research, and piano pedagogy.

Keywords: Movement, Relationships, Self-connection

Negotiating identity and fostering intercultural understanding through culturally diverse musical practices in primary classrooms

Ilein Bermúdez Campos, Independent Researcher

This exploratory study investigates how music teachers create spaces where students engage with culturally diverse music and reflect on their own and others' cultural identities through a concept-based inquiry approach that fosters students' identity negotiation and intercultural understanding. The first phase focuses on the music teacher's perspective, examining how educators design, implement, and reflect on lessons that move beyond the presentation of musical content for students aged 5 to 10. Using qualitative methods including lesson planning, classroom observations, and teacher reflections, this phase captures how educators support students' encounters with such musical practices. Although centered on the teacher's perspective, this phase lays the groundwork for subsequent stages that will explore students' and broader community perspectives, including staff and parents. Findings aim to provide insights into how teachers' decisions, assumptions, and reflective practices shape the conditions under which students experience, express, and negotiate their identities through culturally diverse music, while fostering intercultural understanding through relational engagement in the classroom. Preliminary evidence suggests that structured, reflective, concept-driven learning experiences with culturally diverse music can enhance students' awareness of their own and others' cultural identities. These experiences support identity negotiation and intercultural understanding in primary education within culturally diverse classroom contexts.

Keywords: Culture, Identity, Relationships

Who, Where and How in Acquiring Social-Emotional Competencies for Musical Success: Young Musicians' Perspective

Dejana Mutavdžin (University of Arts in Belgrade) and **Ana Altaras** (Faculty of Philosophy, University of Belgrade)

The importance of social-emotional competencies (S-EC) in reaching high levels of musical development has long been recognized (Jarvin & Subotnik, 2010), but the course of building them remains under-researched. The aim of this qualitative study was to shed more light on prominent sources and the process of acquiring S-EC required for musical expertise and artistry. Answering one online open-

ended question, 195 students from the Faculty of Music in Belgrade reported Who contributed to their acquisition of S-EC, Where this took place and How the process unfolded (14 pages of text; inductive approach, qualitative content analysis). Codes grouped around the questions Who and Where largely mirror. Thus, music-related contexts and activities (educational [formal and informal], professional) and the actors involved are mentioned. The non-musical contexts and individuals from students' private lives (some being into music) are described too. Independent engagement has also been explicitly indicated. When describing the process (How), accounts of the activity of the young musicians themselves prevail. Identified actors are mostly depicted as providers of knowledge, as advisors, motivators and source of support and feedback, as someone who notices and recognizes the value of a musician or his/her work, but less frequent as partners in the process of acquiring S-EC. In line with Jarvin and Subotnik (2010), our findings extend their work with some new actors and contexts, and by foregrounding young musicians' perspective on the process.

Keywords: socio-emotional components, musical success, youth

“Aesthetic music experiences (AMEs): Musical sophistication, self-understanding and orientation in the world

Landon Peck (Royal Conservatory of Scotland) and **Yuko Arthurs** (University of London)

Aesthetic experience plays a central role in how individuals feel oriented and connected within their world (Dewey, 1934). As a domain of human development, aesthetic musical experiences (AMEs) enable reflection on past experiences, present concerns, and future possibilities, mediating between individual self-understanding and collective culture. Through processes of meaning-making, AMEs may facilitate integration between the self and the world.

This study presents an initial exploratory investigation within a larger project on AMEs, examining their content, prevalence, intensity, and perceived significance. The aim is to better understand these meaning-making processes and relate them to individual differences in musical engagement, training, and musical sophistication. A mixed-methods survey (N = 500) with UK-based participants collected quantitative data on musical sophistication (Gold-MSI; Müllensiefen et al., 2014),

alongside qualitative free-response data concerning the occurrence, history, and perceived impact of AMEs.

As data collection is ongoing, we outline expected findings positing that AMEs function as important resources for self-understanding, interpretation, and personal development. We further anticipate that active musical engagement factors, as measured by the Gold-MSI, will positively correlate with both the prevalence and perceived importance of AMEs, supporting the role of musical engagement as a key feature.

This study contributes to a nuanced account of musical engagement as a meaningful cultural practice, demonstrating its role in shaping self-understanding and orientation in the world through aesthetic musical experiences.

Keywords: aesthetic experiences, identity, culture

The Effects of Synchronous and Asynchronous Rhythmic Interactions on Creativity and Emotional Expression

Lanuel Tiran Tishby (Bar-Ilan University) and **Tal-Chen Rabinowitch** (University of Haifa)

Interpersonal synchrony between individuals has been associated with diverse social benefits, including enhanced empathy, cooperation, and strengthened social bonds. Interpersonal asynchrony, by contrast, has received considerably less attention. While synchronous interactions reinforces interpersonal social and emotional alignment, asynchronous interactions may foster independent thinking and freedom of expression key components of creativity. The current study examined how synchronous and asynchronous rhythmic interactions affect creativity, hypothesizing that asynchrony would enhance it.

Participants (N=144) with no formal musical background were randomly assigned to 48 same-sex triads and performed shared drumming under either a synchronous or asynchronous condition. Subsequently, each participant individually completed the Circles Test from the Torrance Tests of Creative Thinking (Torrance, 1998).

The hypothesis that rhythmic asynchrony would enhance creativity was not fully supported. Nevertheless, 12 out of 18 creativity measures showed higher means in

the asynchronous condition. One notably significant finding emerged: emotional expressiveness, with the asynchronous group demonstrating a statistically significant greater capacity for communicating emotions through their drawings. This finding suggests a possible link between rhythmic asynchrony and emotional-creative processing, raising the question of whether the space created by asynchrony allows for a better release of emotional content. These findings may provide a basis for further research and for the development of simple, nonverbal rhythmic interventions that do not require prior musical knowledge, making them accessible tools for fostering emotional expression and creativity.

Keywords: Interpersonal synchrony, Creativity, Emotion

Creative Competencies Among Teachers at Primary-Level Music Schools: Declared Creativity Versus the Reality of Pedagogical

Natalia Trzupek (The Krzysztof Penderecki Academy of Music in Krakow) and **Magdalena Kaliś** (The Krzysztof Penderecki Academy of Music in Krakow)

This paper explores the issue of creative competencies among teachers at primary-level music schools, questioning the extent to which such competencies are genuinely reflected in pedagogical practice. Beginning with a provocative reflective prompt addressed to future educators, the study contrasts subjective perceptions of creativity with the results of nationwide quantitative research conducted among 87 teachers. Using a modified version of the Creative Competence Questionnaire, the study reveals a significant discrepancy between high self-assessments of creativity and lower scores in areas such as inventiveness and goal-directed activity. Particularly noteworthy is the “work experience paradox,” in which professional expertise is often mistaken for genuine creativity, leading to routine-driven practices and increasing the risk of professional burnout.

In response to these challenges, the paper proposes practical methods for fostering creative attitudes. It presents tools such as the SCAMPER technique, de Bono’s Six Thinking Hats method (for both teachers and students), as well as less conventional approaches including Brian Eno’s Oblique Strategies, Forced Connections, the Binary Method, and the Doodling Technique. The paper argues that authentically cultivated creativity should be understood not as an aesthetic luxury, but as an essential antidote to routine and a form of professional self-renewal that helps

preserve freshness, motivation, and innovation in shaping the musical development of future generations.

Keywords: Culture, creative competencies, music school teachers, music education, youth, professional burnout, wellbeing, activating methods

Emotional Functions of Music Listening in Women Undergoing Breast Cancer Treatment

Brigita Vilč (University of Zagreb) and **Mislav Galić** (University Hospital for Tumors)

Background: Breast cancer treatment is often accompanied by complex emotional experiences. Music listening is widely used as a resource for engaging with emotions; however, it may serve different and potentially contrasting emotional functions.

Aim: This study investigates how women with breast cancer perceive the influence of music listening on their processing, experience, and regulation of emotions during cancer treatment.

Method: The randomized clinical trial included women with breast cancer, at the University Hospital for Tumors, Sestre milosrdnice University Hospital Center, Zagreb, Croatia, aged 33-65 years. Participants were assigned to either an intervention group receiving a music listening intervention alongside standard care or a control group receiving standard treatment only. The intervention was implemented during the perioperative period and chemotherapy based on a structured listening protocol. At three time points, participants completed the Adaptive Functions of Music Listening Scale. The AFML scale captured multiple emotion-related functions of music listening, including regulation (e.g., stress, anxiety, anger, and loneliness), emotional engagement (e.g., intense emotional experiences), and emotional processing (e.g., rumination and reminiscence) (Groarke & Hogan, 2018).

Results: Data collection has been completed (N=118). Statistical analyses are still ongoing. Results will examine the distribution and co-occurrence of emotional functions of music listening across groups and over the course of treatment.

Conclusion: Listening to music provides a wide range of emotional resources, including emotion regulation functions and emotionally engaged processes. Distinguishing these functions may provide a more subtle understanding of how women with breast cancer use music to navigate emotional experiences during cancer treatment.

Keywords: breast cancer, music listening, emotion regulation

Singing Before Birth: A Prenatal Music Therapy Programme to Support Maternal-Foetal Connection and Early Bonding

Selena Bricco (Intrecci di Salute - Casale Monferrato)

The prenatal period represents a uniquely sensitive window for the development of the mother-infant relationship. Long before birth, the foetus responds to the mother's voice, her rhythms, and her emotional states; the mother, in turn, begins to construct an internal representation of her baby. Music therapy, with its embodied, relational, and non-verbal qualities, offers a privileged space in which this anticipatory bond can be experienced and strengthened.

Suoni Tondi is a structured prenatal music therapy programme designed and delivered at the multidisciplinary practice Intrecci di Salute (Casale Monferrato, Italy). Drawing on attachment theory (Bowlby, 1969), affective attunement and the motherhood constellation (Stern, 1985, 1995), psychic transparency in pregnancy (Bydlowski, 1997), and communicative musicality (Malloch & Trevarthen, 2008), the programme supports pregnant women in recognising foetal responses, developing self-connection through the voice, and building the relational foundation for early parenting.

This presentation describes the programme's theoretical framework, clinical structure, and findings from its first pilot cycle (November–December 2025), evaluated through a formal service review methodology. Techniques included vocal exploration and improvisation, guided listening to multicultural lullabies, and rhythmic movement.

Results indicate high acceptability and a consistent shift in participants' experience toward themes of presence, breath, and connection, both with themselves and

with their unborn child. The group setting also contributed to reducing perceived isolation during pregnancy.

Keywords: Social bonding, Self-connection, Wellbeing

The Development and Usability of 'YourTUNE', a Digital Music-Based Cognitive Tool to Bridge the Diagnostic

Netchanok Singhey (Faculty of Medicine Ramathibodi Hospital Mahidol University), **Ramon Suwanban** (Faculty of Medicine Ramathibodi Hospital Mahidol University), **Nattawat Wutthiphap** (Royal Thai Air Force Music Division), **Jongjit Rittirong** (Institute for Population and Social Research Mahidol University) and **Punnarust Silparatanawong** (King Mongkut's University of Technology Thonburi)

Standard cognitive assessments for neurodegenerative diseases, such as the Montreal Cognitive Assessment, which is used to support clinical diagnosis, often rely on paper-and-pencil methods, require professional administration and are susceptible to floor and ceiling effects. These limitations can lead to delayed detection and treatment of neurodegenerative diseases in older adults, such as dementia. Research suggests that musical engagement correlates strongly with cognitive function and offers a unique advantage in reducing the early stages of cognitive decline.

While music therapists originally observed ongoing musical behavior to screen a patient's cognitive performance, in the digital era, there is a growing need for accessible, standardized tools to facilitate the capture of these metrics. This abstract aims to present the development of "YourTUNE", a user-friendly digital platform designed to increase the reach of cognitive screening services for both music therapists and non-professional users. The design is based on Neurologic Music Therapy evidence and compliance with the Software as a Medical Device framework. By translating complex music therapy assessment protocols into a digital interface, the tool aims to shift cognitive screening from high-barrier professional settings and the limitations of traditional tools to more accessible environments.

The minimum viable product focused on content validity and usability testing of music-based screening features. The platform was developed through cross-sector collaboration among music therapy, music technology, biomedical engineering, sociology, and Human-Computer Interaction experts. This abstract presents a design

framework that demonstrates how digital music therapy tools can bridge the gap between clinical observation and early diagnostic screening.

Keywords: Agency, Digital Health, Cognitive Screening

Is it just in my Head?: Imagining Music in Childhood

Sneha Jain (University of Jyväskylä), **Patti Nijhuis** (University of Jyväskylä) and **Joshua S. Bamford** (University of Jyväskylä)

Background: Music listening can evoke rich internal experiences such as imagery, emotions, and narratives. While previous research has documented imaginings and other forms of thought during music listening, relatively little is known about how children experience and interpret such internal responses. Understanding these processes is important for exploring how music supports imagination, emotional engagement, and meaning making in young listeners.

Aim: This study examines how children experience and express music-evoked mental imagery (MEMI), focusing on both the characteristics of imagery responses and the ways in which children translate auditory experiences into visual and narrative expressions.

Methods: Building on prior adult evaluations of imagery-evoking musical stimuli, 8-year-old children will listen to selected excerpts spanning different emotional categories. In an initial phase, children will report aspects of their imagery experience using simplified rating measures assessing imagery presence, vividness, narrativity, movement dynamics, and emotional intensity. In a subsequent qualitative phase, a reduced set of stimuli previously classified as high and low in imagery-evoking properties will be presented, and children will draw and describe what they imagine.

Expected Results: Music is expected to evoke diverse imagery experiences in children, including narrative scenes, characters, environments, and movement-related representations. Drawing and descriptive responses may illustrate how children use imagination to interpret and give meaning to musical experiences.

Conclusion: These findings will contribute to understanding how music engages children's imagination and internal experiences. By examining how young listeners translate music into imagery, the study highlights the role of music as a psychological and creative resource in childhood.

Keywords: Emotion, Music evoked mental imagery, Children

Maternal singing enhances interaction quality but not perceived emotional closeness

Zehra Karademir (Goldsmiths College University of London) and Jan De Fockert (Goldsmiths College University of London)

Singing to infants is a widespread caregiving behaviour that may shape caregiver–infant interaction, yet its effects on perceived emotional closeness remain unclear. While prior research suggests that singing can support bonding and regulate caregiver affect, most evidence derives from controlled settings, with less known about its impact in naturalistic contexts. The present study examined whether maternal singing differentially affects emotional closeness, affect, and observable interaction quality using a within-subjects design.

Thirty-two mothers (aged 22–44) from the United States, United Kingdom, and Europe participated via the Lookit platform. Each completed two sessions (singing to their infant vs. non-singing interaction), one week apart, following a pre-test–interaction–post-test format. Mothers completed measures of affect and perceived emotional closeness before and after a five-minute mother–infant interaction. No differences were observed between conditions in self-reported affect or perceived emotional closeness.

Video data from 28 mothers were coded to assess interaction dynamics. Singing was associated with significantly higher levels of eye contact, emotional expressiveness, and maternal sensitivity, with no difference in reciprocity.

These findings reveal a divergence between subjective and behavioural indicators of connection: although mothers did not report increased closeness, interactions were more engaged and responsive during singing. This suggests that everyday caregiving behaviours may influence relational dynamics in ways not immediately

accessible to conscious self-report, highlighting the importance of combining subjective and observational measures when studying early social interaction.

Keywords: Emotion, Social bonding, Wellbeing

Music-Based Mood Regulation: Links to Emotional Responses to the Climate Crisis

Friederike Koehler (University of Jyväskylä), Dana Swarbrick (University of Jyväskylä) and Suvi Saarikallio (University of Jyväskylä)

Climate change is increasingly recognized as both an ecological and psychological crisis. Individuals report eco-anxiety, eco-grief, and eco-guilt—emotional states reflecting worry, mourning, and self-blame in response to environmental degradation. While these emotions are well documented, less is known about everyday coping strategies that may shape their intensity. Music is a widely used tool for emotion regulation, and the Brief Music in Mood Regulation Scale (B-MMR) provides a validated framework for seven strategies (e.g., diversion, discharge, solace). This study investigates how music-based mood regulation is associated with climate-related emotions. A total of 312 participants completed a survey including the B-MMR, Eco-Anxiety Questionnaire (EAQ-22), Eco-Guilt Questionnaire (EGuiQ-11), and Eco-Grief Questionnaire (EGriQ-6). Structural equation modeling showed that emotionally engaging music use (mental work, solace, strong sensation, and discharge) was associated with higher levels of eco-emotions, whereas more lighthearted music use (entertainment, revival, and diversion) was associated with lower levels. In exploratory qualitative responses, people described using music in multiple ways to manage climate emotions, such as soothing or distracting listening, climate focused lyrics, creative outlets, community bonding, and nature soundscapes, while some felt no connection or even negative effects. This research is the first to link music psychology with climate-related emotional experiences. Findings highlight the role of music as an accessible everyday tool for emotions related to the climate crisis, clarify how different forms of music use correspond with more and less intense eco-emotional experiences, and integrate perspectives from music psychology and climate research.

Keywords: Emotion, Self-regulation, Wellbeing

Tango across Generations (TAG): Movement, connection, and wellbeing

Patti Nijhuis (University of Jyväskylä) and **Fernando Waisberg** (University of Jyväskylä)

Tango Across Generations is an interdisciplinary research and community arts project investigating the potential of Argentine tango for promoting social, emotional, and physical wellbeing among youth (14–24) and older adults (60+). Responding to recent WHO findings on rising loneliness and social isolation in these age groups, the project addresses an urgent public health challenge through an embodied, culturally grounded, and intergenerational approach. The research builds on growing evidence that dance-based and partner-based interventions can reduce loneliness and improve mood, vitality, and social connectedness. Argentine tango is uniquely suited to this aim: as a partnered dance based on non-verbal communication, and shared attention, it offers a medium for social connection across the ages.

Using a mixed-methods design, the study begins with a 10-week structured tango course. Pre- and post-measures will be compared for overall health and wellbeing (SF-36 Health Survey, WHOQOL-BREF, WHO-5 Wellbeing Index), social connection (UCLA loneliness scale, Lubben Social Network Scale (LSNS-6), Social Connectedness Scale (SCS)), and anxiety and depression (DASS-21, Geriatric GDS-15). This is followed by a year-long intervention phase with weekly classes, open workshops, informal dance gatherings, and a co-created community event, enabling the assessment of sustained and longer-term effects after one year, and second year retention.

The intervention is expected to reduce measures of loneliness, anxiety and depression and increase overall health and wellbeing, and social connectedness in both groups. The project is also expected to provide insight into community-led wellbeing interventions with a community toolbox being developed for other communities to adopt successful dance programs.

Keywords: Social Bonding, Youth, movement therapy

When does music foster prosociality and reduce prejudice? A multi-study project

Agnieszka Siry (Jagiellonian University in Kraków) and **Romuald Polczyk** (Jagiellonian University in Kraków)

Music is a ubiquitous part of everyday life, with people spending substantial time listening to it. Beyond entertainment, evolutionary perspectives highlight its integrative and communicative functions, suggesting that music may promote bonding and coordination. Consistent with this view, studies indicate that musical activities can strengthen interpersonal bonds, increase cooperation and helping, and may reduce prejudice. However, the conditions under which music shapes prosociality and intergroup attitudes remain insufficiently understood. The present project examines whether, how, and when listening to music increases prosociality and reduces prejudice toward outgroup members.

Six original musical pieces were developed with a producer and musicians. All share the same melody and structure, varying only in genre (alternative pop, rock, foreign folk style) and lyrical content (instrumental, incomprehensible, prosocial, or genre-typical lyrics). A pretest compared these stimuli with existing songs in perceived quality and attractiveness.

Across four experiments, participants will be randomly assigned to selected stimuli. Songs with lyrics are expected to produce stronger social effects than instrumental versions, with prosocial lyrics being especially beneficial for prosociality, though not for prejudice reduction. Pop music is expected to produce the strongest effects, whereas foreign folk music should yield the weakest. Effects should also increase when listening involves greater attention or bodily synchrony. Potential mediators include state empathy, mood, music-evoked emotions, and perceived closeness with others. The project has completed the stimulus pretesting phase, with first findings expected this year.

Overall, the research aims to clarify when and why music may foster helping, social openness, and positive intergroup relations.

Keywords: prosociality, prejudice, lyrics

Four sources of pleasure associated with the experience of groove

Deniz Dumas (University of Jyväskylä) and **Suvi Saarikallio** (University of Jyväskylä)

Human behaviour is largely driven by the desire to maximize pleasure. Music, in both perception and production, is a uniquely powerful source of pleasure, engaging cognitive, bodily, psychological, and social processes. This paper focuses on groove, an everyday, effortless form of sensorimotor musical experience. While previous studies have solely examined groove as pleasurable urge to move, this paper develops a theoretical framework for understanding groove as a multidimensional source of musical pleasure. Extending beyond prior two-dimensional accounts, the framework incorporates immersive and social aspects of the experience. Gathering research findings across disciplines, four sources of pleasure are identified, that are distinguished by the primary level at which pleasure is experienced and expressed, operating at the cognitive, psychological, behavioral, and social levels: (1) pleasure arising from processing of the music, especially linked to the balance of prediction and surprise in musical structure; (2) immersive pleasure associated with a flow-like, altered attentional experience; (3) movement pleasure generated through (desire for) bodily synchronization and sensorimotor reward; and (4) pleasure rooted in social connection, synchrony, bonding, and collective participation. These interconnected levels are supported by neurochemical mechanisms that modulate attention, arousal, timing, and reward, anchoring the pleasures of groove in embodied brain-body dynamics and reflecting its biopsychosocial nature. This framework offers a more nuanced account of why groove is such a powerful, rewarding and everyday human experience. Beyond its theoretical contribution, the current work informs applied domains by highlighting various sources of pleasure that provide internal motivation, offering insights for designing music-based interventions in therapy, education, and well-being, and suggesting directions for future empirical testing.

Keywords: Altered Attention States

Construction of Entrainment in a School-Wide Music Lesson in Middle School

Anne Schürmann (University of Jyväskylä), **Eveliina Stolp** (University of Jyväskylä) and **Suvi Saarikallio** (University of Jyväskylä)

Entrainment arises in social connection with others and is one of the central goals of music education in Finnish schools (Stolp et al., 2023). Entrainment that emerges through joint activity aiming for synchrony and togetherness is often explained from neuroscientific perspective (e.g. Clayton, 2020), while experience-based research on entrainment in its natural environment remains limited. The first sub-study of this doctoral research examines the construction of entrainment as emotional experiences among young people (N=21) in a school-wide, shared music lesson conducted in a large group setting. The research data were collected through interviews during the 2024–2025 academic year in a middle school in southern Finland, and the material was analyzed using content analysis.

The results highlight the importance of a strong foundation and clear structure of the music lesson in enabling a sense of safety. Concrete engagement and student agency create conditions for the development of emotional experiences and shape how entrainment is constructed. The study demonstrates the importance of entrainment as a conscious emotional experience in relation to others, helping to understand the significance of music education as a means of promoting well-being and as a phenomenon that supports learning.

Keywords: Social bonding, Wellbeing, Youth

4 ORAL PRESENTATIONS

WEDNESDAY 23 SEPTEMBER

Session 4A - Movement, synchrony, and bonding

Dance like you're not alone – the influence of others on individual dance in clubbing context

Luca Matsukawa (University of Cologne) and Hauke Eggermann (University of Cologne)

Dancing to music is influenced by many factors, ranging from musical features (Burger & Toiviainen, 2020) to individual traits (Luck et al., 2010). Not yet thoroughly investigated is the effect of other audience members' dance. In a 2x2-between-subjects experiment (N = 58), confederates were instructed to in- or decrease dancing energy in two different DJ sets (Pop vs. House). In a linear model, we predicted movement using self-report items and acceleration measuring devices attached to the torso. Predictors were selected using Voeten's (2025) R library buildmer (backwards elimination). Preliminary analyses based on self-report data indicate that confederates' effect was moderated by DJ set, being higher in the House set. Movement was predicted by music liking, G-DSI "social dancing" subfactor and G-MSI "emotions" subfactor. Prospectively, we will validate our results with movement acceleration data and use continuous-time modelling to investigate the impact of our predictors more precisely.

Keywords: Movement, Emotion

How does music training influence movement synchrony in social bonding processes?

Gabriela Sarmiento (University of Jyväskylä), Joshua S. Bamford (University of Jyväskylä) and Patti Nijhuis (University of Jyväskylä)

Establishing bonds with others is a basic aspect of interactions between individuals and groups (Savage et al., 2020). Music seems to have a positive effect in the formation of social bonds (Pearce et al., 2015; Tarr et al., 2016; Vuoskoski et al., 2017). As does movement synchrony (Launay et al., 2016). Music training (MT) can enhance a person's ability to synchronize with others (Tranchant et al., 2022). However, the influence a person's previous MT has on synchrony accuracy, and how this affects social bonding remains unclear. We hypothesize that more accurate synchronizing from prior music training will increase perception of social bonding. For this, 64 participants (32 pairs) did several randomized coordination exercises, with different coordination (synchrony, anti-phase) and leadership (leading, following, and joint) conditions, that were recorded using motion capture. They also completed a series of questionnaires before and after the exercises: the MT subscale of the Gold-MSI, Inclusion of Other in the Self (IOS) Scale, short PANAS, a familiarity scale, and three novel items created by Taylor (2019) designed to measure team click. For the statistical analysis, participants were grouped according to their score in the MT subscale (High MT: HMT and Low MT: LMT). Preliminary results show no correlation between overall MT and Change in IOS scale. However, they indicate that there is a positive correlation between Change in IOS scale and musical training for the HMT group ($P = .025$). Analysis of the motion capture data is ongoing. The implications of this study will be discussed.

Keywords: Social bonding, Synchrony, Music training

Bodies in motion: Reflexivity, the fifth E of cognition

Douglas Scott

Music feels the way that thoughts move. In this paper I explore motion in a modal theory of mind, drawing inspiration from Mozart's canon games and African music inspired minimalist phase shifting tropes. Modality in this context refers to the musical way in which modes relate to any given gamut, be it of notes or any other collection of things. Because of how this paradigm fits within the broader

semiotic tradition I will use it as a thematic backdrop to illustrate how modal reflexivity (i.e. self-reference) can constructively generate motion in ideas. I propose adding the kind of reflexive entrainment that generates motion of mind to the traditional 4Es of cognition (embodiment, embeddedness, enactivism and extension). The resulting modal 5E theory of mind represents a solution to the inverse problem of creative world-building which I will relate to Fodor's modular mind and Hawkins' 1000 brain model of the neocortex.

Keywords: Self-connection, Movement, Emotion

Trait empathy facilitates rhythmic entrainment and interpersonal synchrony

Jonna Vuoskoski (University of Oslo), **Persefoni Tzanaki** (Royal Holloway, University of London), **Lieke Perik** (University of Oslo) and **Cagri Erdem** (University of Oslo)

Recent research suggests that cognitive facets of trait empathy may facilitate interpersonal synchrony. However, the contributions of affective trait empathy and state empathy remain underexplored. This study investigated how empathy – both as a dispositional characteristic and as an experimentally induced state – influences rhythmic entrainment and interpersonal synchrony in a musical context. Thirty-three dyads completed two synchrony tasks before and after an empathy induction session. In Task 1, participants tapped with a metronome and then tried to synchronise with their partner's tapping; in Task 2, they tried to play melodies in synchrony. To induce empathy, participants narrated personal events while partners were instructed to either empathise (empathy condition) or memorise factual details (control condition) of the events. Trait empathy was measured using the Interpersonal Reactivity Index (IRI; Davis, 1980). Emotional sharing and behavioural mirroring during the empathy induction were assessed using self-report and motion-capture measures. Results showed that both affective and cognitive trait empathy contributed to synchrony: Higher Empathic Concern predicted more consistent tapping in Task 1, and higher Fantasy predicted greater interpersonal synchrony in Task 2. Induced empathy showed no main effects; however, high-Fantasy participants who felt more emotionally engaged with their partners' narrations synchronised better than those who were less engaged. Additionally, high-Fantasy participants showed greater mirroring of narrators' head movements, although this was significant only in the control condition. These findings point to a multifaceted role of empathy in

rhythmic and interpersonal synchronisation, suggesting that effective coordination draws on both cognitive and emotional aspects of empathy.

Keywords: empathy, synchrony, social bonding

Why Do We Use Music During Exercise? Developing the MPAMS for Physical Activity Contexts

Andrew Danso (University of Jyväskylä)

Music is a near-ubiquitous feature of physical activity, woven into workouts, runs, and sport. Far from incidental, its use appears deliberate: individuals harness music to energise effort, regulate mood, distract from fatigue, and structure movement (Terry et al., 2020). Yet, existing measures capture these motives only in part. This study aimed to develop and provide initial validation evidence for the Motives for Using Music During Physical Activity Scale (MPAMS).

Item generation was theory-informed and grounded in prior literature, yielding an initial pool spanning nine hypothesised domains (e.g., enjoyment, motivation and effort regulation, distraction, synchronisation, identity, environmental control). Content validity was established via independent expert review, with item- and scale-level content validity indices (CVI) meeting recommended thresholds.

Participants (N = 405) completed an online survey assessing typical reasons for using music during diverse physical activity contexts. Exploratory factor analysis (EFA) is underway, with factor retention guided by parallel analysis and interpretability. Items are evaluated based on loading strength, cross-loadings, and conceptual coherence, with the expectation that the nine initial domains may consolidate into a more coherent structure.

Preliminary EFA results will be presented. The aim is to advance a clear, psychometrically sound measure of why people use music to regulate their exercise experience.

Keywords: music, physical activity, scale development

Sing Together, Cooperate Together: Daily Choral Singing as a Driver of Social and Cognitive Development

Cédric Hubert (Aix-Marseille Université) and **Aline Frey** (Aix-Marseille Université)

To investigate how music may foster social connection and the development of non-musical skills, we conducted a 5-year longitudinal study with 314 children attending a socioeconomically disadvantaged primary school. Children were assigned at the class level to one of three conditions: daily choral singing (20 min), creative writing (active control), or standard curriculum (passive control). We assessed cognitive, linguistic, and prosocial outcomes using generalized linear mixed models, alongside analyses of classroom social network structure.

Results show selective but robust effects of singing. While most cognitive and language measures followed expected developmental trajectories with limited group differences, choral singing significantly enhanced verbal short-term memory and, critically, prosocial behaviors (cooperation in a prisoner's dilemma; sharing task), counteracting the typical age-related decline observed in control groups. At the group level, singing increased network density and transitivity, suggesting stronger and more cohesive peer relationships.

These findings support the hypothesis that interpersonal synchrony in collective singing promotes social bonding and cooperation (Cirelli, 2017; Kirschner & Tomasello, 2010; Wiltermuth & Heath, 2009). Importantly, effects were stronger in lower socioeconomic children for some language measures, highlighting the potential of singing as an inclusive intervention.

Our study represents one of the few long-term longitudinal investigations focused specifically on singing—a highly accessible, low-cost form of music-making compared with instrumental practice. The findings highlight promising avenues for education, as daily collective singing can enhance prosocial behavior, classroom climate, and group cohesion—factors that are crucial for learning and social development.

Keywords: Choral singing, School-based intervention, Social bonding

Session 4B - Music and well-being across the lifespan

The role of music in alleviating later-life loneliness

Ceren Ayyildiz (The University of Sydney), **Muireann Irish** (The University of Sydney), **Mats B. Küssner** (Gustav Mahler Private University of Music) and **Steffen A. Herff** (The University of Sydney)

Loneliness in older adulthood has been linked to an increased risk of cognitive decline (Samtani et al., 2022), which calls for greater attention to practical coping strategies such as music listening (Schäfer et al., 2020). However, the specific reasons why older adults turn to music to address loneliness are not well understood. Accordingly, we conducted two studies. To identify themes for in-depth exploration from older adults' reasons for choosing certain music, we used reflexive thematic analysis in Study 1 (N = 35, aged 62+). To explore further themes and how the weights of themes differed by participants' loneliness levels and language (English, German, or Spanish), we ran structural topic modelling with Bayesian Dirichlet regression in Study 2 (N = 118, aged 65+). More than 54% of those surveyed reported using music at least occasionally to reduce loneliness. Study 1 surfaced themes of memory and engagement as well as coping mechanisms. Study 2 showed that, compared to music chosen merely for enjoyment, music used to cope with loneliness was characterised by greater autobiographical memory, positive affect, and meaning making (Post.Prob $\geq .9999$). The effects differed according to loneliness and language group. Overall, our results show that music may play a meaningful role in helping older adults navigate loneliness by offering benefits that extend to memory, emotional and social wellbeing.

Keywords: Loneliness, Self-regulation, Wellbeing

Social interaction enhances the pleasurable urge to move to music in people with Parkinson's disease

Jan Stupacher (Aarhus University), **Peter Vuust** (Aarhus University) and **Victor Pando-Naude** (Aarhus University)

Music connects individuals, often by eliciting a pleasurable urge to move, also known as groove. Music- and dance-based interventions can improve motor symptoms in people with Parkinson's disease (PD), but it is unclear how rhythmic

structure and social interaction influence intervention outcomes. We therefore examined the effects of rhythmic complexity and interpersonal synchronization on subjective and objective movement responses to music in individuals with and without PD. Participants (N = 76) tapped to the beat of music varying in rhythmic complexity (isochronous to highly complex) across three conditions: music alone, music with a visual beat cue, and social interaction with an assistant who also tapped to the beat. We measured pleasurable urge to move to the music (PLUMM), felt synchrony with the music, beat-related movement energy, and auditory-motor synchronization stability. Social interaction increased PLUMM, felt synchrony, movement energy, and synchronization stability compared to music alone, whereas visual cues had no reliable effects. These effects were strongest for moderate to high rhythmic complexity and were more pronounced in participants with PD than in age-matched controls. Importantly, PLUMM was positively associated with social closeness toward the interaction partner, trait empathy, and perceived social reward from music. Overall, the findings indicate that improvements in motor performance and subjective engagement through music-based interventions in PD reflect enhanced temporal prediction via auditory-motor coupling and motor simulation. They further suggest that motor and affective responses to music involve socio-emotional mechanisms promoting reward and social bonding.

Keywords: groove, social bonding, Parkinson's

Psychological Well-Being Among Youth Choir Singers: The Role of Age and Affective States

Jovana Blagojević (University of Novi Sad) and **Katarina Habe** (University of Ljubljana)

Choral singing has been associated with well-being benefits in adults and clinical populations, yet the affective mechanisms underlying these benefits among youth remain underexplored. This study examined the role of age and choir-related affective states in psychological well-being among youth choir singers. A cross-sectional survey was conducted with 315 choir singers aged 15–24 years (mean age 18.5) from Slovenia, Serbia, and Croatia. Participants completed an online questionnaire including the WHO-5 Well-Being Index, a choir-adapted Positive and Negative Affect Schedule (PANAS), and the Choral Activity Perceived Benefits Scale (CAP-BES). Correlation, regression, and mediation analyses were employed to examine

associations between age, choir-related affective states, and well-being. Older singers reported higher well-being and lower choir-related anxiety. Choir-related anxiety negatively predicted well-being and partially mediated the relationship between age and well-being, whereas tension did not. Positive affective states did not significantly predict well-being once negative affect was accounted for. Among perceived choir benefits, optimism was the only significant predictor of lower anxiety, whereas ability, satisfaction, belonging, and group engagement were not. These findings indicate that the psychological value of choir participation in youth is more strongly associated with the reduction of self-conscious anxiety than with the presence of positive affect. The results highlight the need for choir environments that reduce evaluative pressure and foster emotional safety, especially for younger singers who may be more vulnerable to such negative affective states during choir participation.

Keywords: age differences, affective states, choir participation, well-being, youth

Impact of music engagement on mental health and quality of life in an Asian context

Kat Agres (National University of Singapore), Rui Jia Chew (National University of Singapore), Qi En Khoo (National University of Singapore), Ethan Maniam (National University of Singapore), **Gladys Jiamin Heng** (National University of Singapore) and Wilson Tam (National University of Singapore)

There is increased recognition of the benefits of music engagement for mental health and quality of life in recent years. However, most of the evidence to date has been derived from Western contexts, and the extent to which these associations generalize to non-Western settings are not yet well understood.

The current study examines the relationships among mental health, quality of life (QoL), coping strategies, and music engagement in a non-Western context. 257 Singaporean undergraduate students (age = 21.9 ± 3.28 , 75.5% Female) completed an online survey comprising the (1) World Health Organization Quality of Life Brief Scale, (2) Depression, Anxiety, and Stress Scale – 21 items, (3) Revised Adolescent Coping Behavior Scale, (4) Brief Music in Mood Regulation Scale, and (4) additional measures of music-related behaviors.

Regression analyses indicated that greater engagement in music-making (in hours) was significantly associated with reduced levels of depression, anxiety, and stress. Furthermore, both duration of instrument playing (in years) and frequency of music listening were positively associated with QoL. With respect to music-based coping mechanisms, using music for relaxation was associated with lower depression scores, while the use of music for distraction was associated with better QoL. In contrast, the use of music to release negative emotions was linked to increased levels of depression, anxiety, and stress.

Taken together, these findings provide support for the benefits of both active and passive music engagement for mental health and well-being outside of Western contexts, while cautioning against emotional discharge through music.

Keywords: Music engagement; Mental health; Mood regulation

Leisure activities and adolescents' wellbeing: A secondary analysis of German household data (SOEP)

Gunter Kreutz (Carl von Ossietzky University Oldenburg), **Radwa Khalil** (Carl von Ossietzky University Oldenburg), **Eva Schurig** (Carl von Ossietzky University Oldenburg) and **Michael Feldhaus** (Carl von Ossietzky University Oldenburg)

Previous research has examined the relationship between the leisure activities of children and adolescents and their mental health and wellbeing. To explore associations across several activities, we used self-reported data from 11 to 14-year-old participants (N = 3197) in the German Socioeconomic Panel (SOEP). Frequency of engagement in social media use, computer gaming, listening to music, playing music, sports, meeting friends, reading books, and attending religious groups were entered into a k-means cluster analysis. A partitioning of the sample into four subgroups labelled as Screen-oriented, Multiple Activities, Culture-oriented, and Low Activities then served as an independent variable in a series of linear regression analyses to predict three subscales of the Strengths and Difficulties Questionnaire (SDQ), namely Internalizing, Externalizing Problem Behaviours, and Prosocial Behaviours. Demographic, socioeconomic, and educational factors served as control variables and were subsequently entered into the regression models. Screen-oriented and Low Activities subgroups differed significantly from the Multiple Activities and Culture-oriented subgroups in that the former two

subgroups showed greater Externalizing and lower Prosocial Behaviour, whereas the latter subgroups were also higher in parental education and family income. These results support the hypothesis that patterns of engagement in leisure activities differentially predict social-emotional problem behaviours. They corroborate and extend findings to suggest that socioeconomic resources and structural factors, such as the availability of leisure opportunities may independently affect children and adolescents' mental wellbeing and healthy development.

Keywords: Leisure activities, adolescents, mental health

Everyday music listening, mental wellbeing, and aural diversity – a survey study

Adelaide Beckwith (University of Salford), **Duncan Williams** (University of Salford) and **Robert C. A. Bendall** (University of Salford)

Listening to music is a useful way of managing emotions – and being able to choose what we listen to and when is particularly impactful. Everyday music listening is associated with increased wellbeing and quality of life, and decreased levels of depression and anxiety. However, research in this area typically excludes people with hearing loss. This study therefore sought to address this gap in knowledge. A preregistered, cross-sectional online survey was conducted using validated measures that consider participants' hearing health, use of music for emotion regulation, and self-reported mental health and wellbeing. It is hypothesized that use of music for emotion regulation, importance of music, and engagement with music will be positively associated with wellbeing and quality of life; and negatively associated with depression and anxiety. It is also hypothesized that impact of hearing loss, hearing loss severity, and hearing difficulty will be negatively associated with wellbeing and quality of life; and positively associated with depression and anxiety. Structural equation modelling will be used to test the hypotheses and measure the relationships between the variables. Previous research in this area has looked at the experiences of people who have 'normal' hearing – it is therefore important that people with hearing loss are encouraged to participate, to understand their experiences and whether these are similar or different to those of people without hearing loss. This will help shape recommendations around the therapeutic use of music listening, and how this can be tailored specifically for people with hearing loss.

Keywords: Emotion, Self-regulation, Mental health

Session 5A - Music programs and interventions

Intercultural Music Education and Cultural Flexibility: West Asian Traditions Among Finnish Youth

Farshad Sanati (University of Jyväskylä)

In increasingly diverse societies, fostering intercultural understanding among youth remains a central educational challenge. This study examines how intercultural music education, grounded in West Asian musical traditions, can support the development of cultural flexibility, empathy, and social cohesion among Finnish youth.

Positioned at the intersection of music education and intercultural studies, the research investigates how embodied and collaborative musical practices can create meaningful encounters across cultural boundaries. The study engages Finnish music students aged 16–25 in a structured learning experience that combines cultural context, instrumental practice, and collective performance. Participants are introduced to modal systems, rhythmic structures, and aesthetic principles from Iranian and broader West Asian traditions, followed by hands-on santour workshops and ensemble-based music-making.

Using a mixed-methods approach, the research draws on both quantitative measures of intercultural attitudes and qualitative reflections on participants' lived experiences. Particular attention is given to how learning an unfamiliar musical system through active participation may challenge preconceived notions, encourage perspective-taking, and foster a sense of connection across cultural differences.

By integrating artistic practice with empirical inquiry, the study contributes to the development of pedagogical models that move beyond representation toward experience-based intercultural learning. It offers insights for educators, researchers, and policymakers seeking sustainable approaches to inclusion and dialogue within music education and broader social contexts.

Keywords: Intercultural Music Education, Cultural Flexibility, Social bonding

Bridging Practice and Theory: Community Music Therapy and Trauma-Informed Approaches in Work with Displaced Youth

Samuel Gracida (SRH University), **Debora Cestonaro** (SRH University), **Jutta Wehlan** (SRH University) and **Alexander Wormit** (SRH University)

The Bridges project is a music therapy, music education, and musical initiative based in Heidelberg, Germany that creates spaces for connection and shared music-making for displaced youth. Through community music sessions, instrumental lessons, band workshops, and intercultural concerts, the project aims to foster social participation, creative expression, and psychosocial wellbeing in a context of migration and trauma.

This practice-based approach is supported by constant scientific research and evolution. Findings from two complementary academic studies examined the project through the lenses of Community Music Therapy (CoMT) and trauma-sensitive practice. First, a systematic literature-based thesis developed a concept for integrating trauma-sensitive principles into the project, identifying elements such as safety and empowerment, and concrete guidelines for implementation. Second, a qualitative study situated Bridges within the theoretical framework of CoMT, analyzing how socially embedded, resource-oriented, and context-sensitive practices are enacted in everyday work. The combined findings highlight a productive tension between theory and practice: while explicit theoretical grounding in CoMT remains limited in the German discourse, many of its principles—such as interprofessional collaboration and ecological orientation—are already implicitly realized in the project's structure and activities. At the same time, the integration of trauma-sensitive approaches emerges as both essential and still in development, requiring ongoing reflection, team training, and structural support.

By linking Bridges to international discussions on community-oriented and trauma-informed music therapy, this presentation calls for stronger theoretical clarity and cross-contextual dialogue to advance the field and guide future community-based work with displaced persons.

Session 5B - Concerts and experiences of connection

Moving Together, Feeling Connected: How Audience Movement Relates to Pro-group Thinking at Live Music Events

Maren Hochgesand (University of Cologne) and Hauke Egermann (University of Cologne)

Live music events are inherently social, where attendees are often drawn not only by the music but also the opportunity to connect with others. While there is evidence that synchronised movement, such as swaying, is linked to pro-group outcomes in controlled settings, its role in real-world concerts remains underexplored.

This multi-study investigation examines audience movement entrainment and social experience as well as pro-group outcomes across three authentic settings: two big band concerts with the same programme (one seated, one unseated), an indie-pop concert, and a club event. Our aim was to assess the effect of the concert format on movement entrainment and the social experience, and to explore the link between movement and pro-group thinking with regard to both fellow attendees and performers.

We collected data from 180 participants equipped with small sensors to measure movement entrainment, alongside self-reported responses. Hierarchical linear and structural equation modelling examined key relationships, with preliminary findings from the club study included.

The standing concert revealed significantly higher movement entrainment, greater attention, deeper processing, and stronger solidarity with other attendees compared to the seated version. Movement entrainment was positively correlated with pro-group outcomes towards both audience and performers. Social connection to the band exceeded that to the audience and the intensity of social connection was further enhanced by positive affect and familiarity with other attendees. Preliminary club data indicate similar trends. The results highlight that concerts are embodied, social events where the audience, their movement, and the context shape collective experience.

Keywords: movement, social bonding

Effects of listener-responsive visuals and bespoke composition on social connection in a Western-classical concert setting

Dan Baczkowski (Royal Northern College of Music) and **Michelle Phillips** (Royal Northern College of Music)

The study of live music listening in ecologically valid concert settings has developed significantly in recent years. In some 'research concerts' there can be a conflict between what the research elements communicate and the musical themes of the programme. This study proposes an alternate approach to concert research whereby the research questions inform the entire performance including the music performed. We developed a system using EEG measurements to generate visualisations which change in real-time according to an audience member's responses to the music. An original composition was also written to be paired with this system, aiming to maximise its potential. This study investigates whether a more intentional intertwining of music and data collection might make the research concert experience more enjoyable for audiences and performers.

Previous research suggests that social connection is a key component of the concert experience for many. Observing other listeners' reactions to the music may amplify one's own affective responses through emotional contagion. However, Western-classical concert etiquette is typically characterised by stillness, where opportunities to observe others' reactions are limited. We hypothesised that a more overt representation of listener responses might influence enjoyment of the performance by increasing social connection. Following an orchestral concert featuring this bespoke composition and visualisation, audience members and the orchestra were surveyed, and they reported that the visual elements increased their enjoyment.

This presentation will discuss how these alterations to the concert frame might affect social connection, and the implications of these methods for the direction of future live music research.

Keywords: Emotion, Social bonding

Attending concerts in-person: Connecting to the audience and artists

Margarida Baltazar (University of Jyväskylä), Dana Swarbrick (University of Jyväskylä), Joshua Bamford (University of Jyväskylä), Patti Nijhuis (University of Jyväskylä) and Martin Hartmann (University of Jyväskylä)

Background: Nowadays, collective musical experiences—such as concerts—can take place both in-person and remotely. While live, in-person collective experiences are deeply rooted in our musical history, the presence of remote performances (live streams and recorded concerts) has been steadily growing. Nevertheless, in-person experiences can still hold special characteristics that are not reproducible through technology-mediated concerts.

Aim: This study aimed to explore the perceptions of what makes live, in-person concerts special.

Method: The data were collected through an online questionnaire, where participants were asked to justify their preference towards in-person concerts in detriment of streamed concerts. The participants wrote their answers in an open-text box. The final sample consisted of 37 participants, all music-loving nonmusicians (25 women, 11 men, 1 non-binary, aged 19 to 67).

Results: Four main themes were constructed from the data. Participants justified their preference towards in-person concerts due to "shared experiences" (community and belonging, seeing and feeling the artists, interaction, shared music taste), "subjective experiences during concerts" (embodied experience, absorption-immersion, energy, emotions), "concert attributes" (sound system, uniqueness of concerts, atmosphere and vibe), and "personal relationship with live music".

Conclusion: Our study highlights the feeling of connectedness as a key motivator to attend in-person concerts. In the participants reports, the dimensions now labelled across four themes are intertwined and together build a unique experience—one made of strong, embodied feelings, connectedness, special atmosphere, and love for live music.

Keywords: social bonding, concerts, musical experiences

From Absorption to Connection: Self and Social Bonding in Live Video Game Music Concerts

Natalie Miller (Western University)

Live concert experiences foster musical absorption and social connection (Kreuzer et al., 2025), while media fandoms cultivate shared identity and participatory engagement (Jenkins, 2006). This study assesses how live performances of video game music elicit states of musical absorption that facilitate self-referential thought and social bonding.

Study participants completed a survey distributed at nine concerts in the 'Stardew Valley: Symphony of Seasons' concert tour ($n = 1103$). Survey measures included indices of musical absorption (mean of three items, 1-7 Likert scale; Swarbrick et al., 2024), social connection (1-7 Likert scale; Swarbrick et al., 2024), and music-evoked thought (Jakubowski et al., 2024).

Results indicate high levels of musical absorption ($M = 5.2$, $SD = 1.0$) and frequent self-referential thought, including autobiographical memories (42.9%), game-related memories (87.7%), and future thoughts (32%). Respondents describe strong connection to fellow audience members ($M = 4.1$, $SD = 1.6$), performers ($M = 4.5$, $SD = 1.6$), and the broader 'Stardew Valley' community ($M = 4.8$, $SD = 1.6$). Multiple linear regression models demonstrate that absorption significantly predicts social connection across audience ($\beta = 0.39$, $p < .001$, $R^2 = 0.18$), performer ($\beta = 0.16$, $p < .001$, $R^2 = 0.16$), and fandom community domains ($\beta = 0.37$, $p < .001$, $R^2 = 0.45$).

Positioning live video game music concerts as powerful contexts for studying music cognition and connection in ecologically valid settings, these findings demonstrate that musical absorption is a key mechanism linking social bonding and self-connection across past, present, and imagined future experience.

Keywords: Culture, Social bonding, Multimedia

Session 6A - Social bonding and across listening contexts

Music signaling and social bonding as two sides of the same coin

Piotr Podlipniak (Adam Mickiewicz University)

Explanations of the adaptive value of music often contrast two perspectives: music as a credible signaling system and music as a mechanism for social bonding. The main objection to the social bonding hypothesis is that its proposed function appears proximal (Mehr et al., 2021). However, if signaling is understood as a form of manipulation, then fostering cooperation and social cohesion can be viewed as one of its desirable outcomes. This proposal argues that social bonding is not an alternative to signaling but rather a direct consequence of signaling through music. Unlike speech, musical behavior is fundamentally choric (Haiduk & Fitch, 2022): it enables simultaneous, coordinated signaling among group members. Such coordination could have been favored by selection due to the advantages it provides in group living. Music-specific features such as rhythmic synchronization and pitch matching, may thus function as signals that influence co-performers by shifting their behavior toward greater cooperation and reduced individualism. From a proximal perspective, these effects are mediated by neurochemical mechanisms, including the release of endogenous opioids and oxytocin, which also facilitate emotional sharing. Consequently, signaling and social bonding should be understood not as mutually exclusive explanations but as synergistic processes jointly contributing to the evolution of musicality.

Keywords: Emotion, Social bonding

Solitropic and sociotropic tendencies as predictors for individual and social music listening

Alessandro Ansani (University of Jyväskylä), **Suvi Saarikallio** (University of Jyväskylä) and **Gunter Kreutz** (Carl von Ossietzky Universität Oldenburg)

Previous work suggests that individuals vary in their preferences for enjoying music listening in solitude vs in social contexts. The Individual and Social Music Listening Scale (ISMUS-LI: Ansani et al. 2026) is a validated psychometric instrument that captures these tendencies. The current study extends its validation by employing several additional scales which measure the extent to which individuals

experience pleasure from activities in solitude (solitropism), or rather in social interactions (sociotropism).

We tested whether the tendency to enjoy and engage in individual music listening is more associated with a strong desire for solitude (high solitropism) or a weak desire to spend time with others (low sociotropism, see Leary et al., 2003). Similarly, we investigated whether social music listening is more associated with high sociotropism or low solitropism.

Based on previous work (Leary et al., 2003), we expected the connections to be stronger for high values of trait-congruent rather than low values of trait-incongruent preferences. Lastly, connections of these patterns with healthy and unhealthy music use (Saarikallio et al., 2015) were explored.

Keywords: Music Listening, Personality, Relationships

Choral Singing and Social Connection: From Embodied Synchrony to Gregorian Chant

Serena Allegra (University of Milan)

This contribution, at the intersection of historical musicology and music cognition, proposes an integrated approach to redefining music as a mechanism of embodied connection between self and others through temporal, affective, and social coordination. Collective singing is examined as a privileged site for understanding how interpersonal synchronisation generates shared regulation and participatory sense-making.

Empirical studies on choral singing show associations with wellbeing, emotional regulation, and social bonding. These effects are commonly explained through mechanisms of shared attention and embodied coordination of breath, voice, and timing (Schladt et al.2017; Bullack et al.2018; Good&Russo2022). Together, these findings suggest that group singing operates as embodied social synchrony in which affective and cognitive states are coupled across individuals.

These effects are not reducible to single physiological markers but emerge from multilevel bodily and social coordination, with evidence indicating that respiratory

synchronisation is not necessarily correlated with timing accuracy in musical performance (Schreiber, et al. 2026).

Building on this framework, Gregorian chant is examined as a case study in which liturgical standardisation, oral transmission, and acoustically resonant environments may have supported large-scale collective synchronisation and shared affective states. Rather than treating historical repertoires as isolated objects, this approach reframes musical practices as evolving technologies of embodied coordination across bodies, time, and culture.

Keywords: Social bonding; Participatory sense-making; Gregorian chant.

Live Music Fosters Collective Effervescence and Leads to Lasting Positive Outcomes

Nicole Koefler (University at Buffalo), Esha Naidu (Duke University), Shira Gabriel (University at Buffalo), Veronica Schneider (University at Buffalo), Gabriela Pascuzzi (University at Buffalo) and Elaine Paravati (University at Buffalo)

This work examined the power of live music events to enhance wellbeing through collective effervescence (CE)—the sense of sacredness and connection felt when in large groups. Four studies (N = 789) using both university and community samples examined the relationship between live music events and CE and how this relationship contributes to positive, lasting outcomes. Results suggest that CE is highly related to positive outcomes associated with attending live music events. CE uniquely predicted meaning in life and enjoyment during the event above and beyond related constructs. Feeling CE was also related to greater meaning in life during the event and continued happiness a week after live music events. Further, CE mediated effects between various elements of live music events (e.g., parasocial bonds with the artist) and positive lasting outcomes. In summary, CE plays a key role in the lasting wellbeing that follows live music events.

Keywords: wellbeing, live music, collective effervescence

Session 6B - Musical Skills

Formulating a Gifted Screening Test by Integrating Musical Elements: Aligning Expert Validation and Student Experiences

Jais Ismail Md (Universiti Teknologi MARA) and **Adib Danial Norman Mohd.** (Universiti Teknologi MARA)

The identification of giftedness often relies on traditional linguistic and logical-mathematical assessments, frequently overlooking alternative domains of intelligence. This study investigates the formulation of a comprehensive screening test by integrating musical elements into the identification process, focusing on the alignment between theoretical validity and practical user experience. A primary quantitative approach was employed, supported by qualitative expert feedback, gathering data from a panel of educational experts (n=7) and a diverse cohort of primary school students (n=62) aged 11 years representing various ethnicities and states across Malaysia. Expert validation results yielded a mean score of 4.38 out of 5.00, confirming the instrument's content validity and its effectiveness as a legitimate method for gifted identification. The final results established credible music items for integration into the gifted test, specifically covering music theory components such as solfege, musical instruments, structure, genre, and intervals, alongside an aural test section focusing on intervals, chords, and melody. Student feedback indicated a positive reception with an overall mean of 3.75; the highest sub-score of 4.02 reflected a strong desire among learners for music items to remain a permanent fixture in screening tests. Experts rated the technical fairness of the items highly at 4.60, yet students expressed a more moderate perception of fairness at 3.68. This difference suggests that while the test is theoretically sound, students may perceive challenges due to varying levels of individual musical confidence. Future research should focus on implementing specialized enrichment programs for identified students to nurture their musical potential.

Keywords: Gifted Identification, Musical Intelligence, Wellbeing

Rhythmic Skills of Brazilian Expert Pianists: Developing a Complex Repertoire of Temporal Sensorimotor Combinations

Lina Assumi Abe (Federal University of Paraná), **João Gabriel Assunção Lima** (Federal University of Paraná) and **Danilo Ramos** (Federal University of Paraná)

This study investigates how Brazilian expert pianists interpret and perform Brazilian rhythms. Two case studies were conducted in which pianists learned a selected piece while verbalizing their thoughts using a think-aloud protocol (Ericsson & Simon, 1993). One pianist studied *Capim* by Djavan, and the other worked on *Telefone* by Roberto Menescal and Ronaldo Bôscoli. Final performances were video-recorded and transcribed, and rhythmic patterns in both melody and accompaniment were analyzed. Although the studies were not comparative, both pianists structured their arrangements and improvisations around samba-style rhythmic patterns. In particular, they employed a semiquaver–quaver–semiquaver pattern known as “characteristic syncopation,” typical of Brazilian music, which reshapes temporal perception (Sandroni, 2002). They also applied strategies such as poly-rhythm, intermanual complementarity, articulation variation, syncopation, and changes in rhythmic density, with accents guided by speech-like intonation. Additionally, one pianist incorporated telephone-like sounds and demonstrated the generation and maintenance of an internal temporal framework. We conclude that the rhythmic skills of Brazilian expert pianists rely on the development of a complex repertoire of temporal sensorimotor combinations, enabling spontaneous, expressive, and meaningful rhythmic interpretation.

Keywords: Rhythmic skill; Brazilian pianists; movement

Manipulating timing but not task difficulty: Investigating the role of hand used and auditory feedback

Shannon Wright (University of the Fraser Valley), **Hailey Hemmerich** (University of the Fraser Valley), **Lana Marinculic Sijan** (University of the Fraser Valley) and **Valentin Bégel** (Paris Cité University)

Auditory rhythms range in complexity. One challenge when investigating auditory rhythm performance is independently manipulating temporal variability and task difficulty. A potential method for altering temporal variability while fixing task difficulty is to manipulate hand used to perform rhythms, yet there is mixed evidence that tapping rhythms with the non-dominant hand increases tapping variability. The current study sought to identify whether hand used is a feasible manipulation of tapping variability, without manipulating rhythm difficulty. 42 participants tapped simple isochronous rhythms with their dominant and non-dominant hand,

both with and without auditory feedback. There was no effect of hand or auditory feedback on overall tapping variability or accuracy. There was some evidence of asymmetry in tapping variability between right- and left-handers: right-handers tapped more variably when using their non-dominant hand compared to left-handers. Exploratory analyses showed a significant interaction between tapping trial and hand used for the left-handed participants only. Degree of hand dominance and years of musical training were not significantly correlated with tapping variability. These findings largely indicate that simple rhythms are produced equally well by both hands, regardless of auditory feedback, with small differences in rhythm performance emerging between right- and left-handers. We conclude that hand used is not an effective behavioural manipulation for timing variability.

Keywords: Movement, Timing, Rhythm Performance

5 POSTERS 2

Posters Presentations 2

The effects of earplug use on music listening in noisy recreational settings: a systematic review

Sam Allonby (University of Manchester), **Chris Plack** (University of Manchester), **Annie Pye** (University of Manchester), **Mark Sladen** (University of Manchester / Manchester University Foundation Trust) and **Samuel Couth** (University of Manchester)

Background: The World Health Organisation estimates that over one billion young people are at risk of hearing damage due to unsafe listening practices, such as attendance at noisy recreational events. Earplug use can prevent noise-induced hearing loss, but usage in noisy recreational settings is low (Armitage et al., 2020). Perceived negative impact on music quality is one frequently cited barrier to use (Couth et al., 2021).

Objective: Systematically review the impact of earplug use on hearing function and listening experience in recreational music settings.

Methods: Searches were conducted across nine databases. Of 561 articles screened, 18 studies were retrieved which quantitatively or qualitatively assessed the impact of earplug use on listening experience (e.g., music quality) and/or hearing function (e.g., hearing threshold shift).

Results: Data analysis is ongoing. Preliminary analysis has indicated almost universal agreement that foam earplugs have a detrimental effect on perceived music quality, whereas custom-moulded and high-fidelity earplugs (HFEs) have less of an

impact. Qualitative research has highlighted how earplug usage can play a varied role in facilitating or preventing musical immersion, and thus enjoyment, in event settings.

As for impact on hearing function, all studies which experimentally assessed this demonstrated that earplug use is associated with a significantly reduced incidence of threshold shifts, and fewer reports of ear pain, ringing and difficulty hearing others, post-exposure.

Conclusion: To date, there are no studies which experimentally assess music listening experience with and without earplugs. This represents a logical next step in addressing perceived barriers to usage.

Keywords: Emotion, Wellbeing

Exploring the Functions of Music in the Everyday Lives of Children: A Qualitative Study

Anne Cabildo (University of Toronto) and Christina Vanden Bosch der Nederlanden (University of Toronto)

From an early age, music is a common element of daily life, yet our understanding of its functional role in children's lives relies on parent-report measures rather than children's own voices. This study directly investigates how children, aged 5 to 9, conceptualize and use music in their daily lives. We conducted semi-structured interviews to elicit first-person accounts of when, why, and how children engage with music. Preliminary thematic analysis (current $n = 5$ of a target $N = 30$) reveals developmental differences in the way children describe the presence of music in their daily lives. Across all participants, school-based music education and caregiver-led routines (e.g., music during morning or bedtime routines) emerged as primary contexts for musical engagement. However, older children demonstrated a greater ability to describe intentional music use, reporting active involvement in selecting music to accompany specific activities. In contrast, younger children primarily described music as being provided by the adults around them. This suggests that with age, children may move from experiencing music through adult-led routines toward self-directed use, where they begin to internalize and verbalize music as a functional tool in everyday activities. By identifying the specific, developmentally appropriate

language children use to describe their musical experiences, this work will inform the development of a child self-report questionnaire, aiming to capture individual differences in how children conceptualize the value of music in their daily lives.

Keywords: agency, self-regulation

Cha Cha Cha Mania: Participatory Fandom and Transnational Social Bonds Beyond Eurovision

Renata Lisowski (University of Jyväskylä)

Uuden Musiikin Kilpailu has been instrumental in expanding the audience for Finnish music, and the strongest example of this is the fan community which resulted from “Cha Cha Cha” mania in 2023. Thanks to the popularity of this one song, people from around Europe and the world built relationships and shared meaningful experiences both online and in person. Through thematic analysis of qualitative survey data from approximately 100 individuals active in the online Käärijä fan community, this research will examine how the international fandom flourished, especially regarding the creation and sharing of fan art and fan translated videos and how these practices facilitated social bonding. International participatory fan culture has already been examined through the lens of K-Pop, but this research will focus on a niche phenomenon as opposed to a global mega-industry. This research will also examine how the fandom carried through into the real world with fans traveling to Finland for concerts where they took part in fan projects and exchanged physical keepsakes, like handmade cards and jewelry, in addition to fan pilgrimage to locations like the Käärijä mural in Vantaa and the former Käärijä BnB in Malmi. Tourism to Finland has been observed by scholars among fans of heavy metal music and Moomins, but the impact of pop music and its potential as a tourism driver remains unaddressed in the literature. Examination of the international Käärijä fandom will show the many ways that music inspires individual creativity, fosters relationships, and enriches the lives of fans.

Keywords Culture, Social bonding, Relationships

How does prior musical training shape emotion cognition in listeners?

Medha Basu (Jadavpur University), **Kumardeb Banerjee** (Jadavpur University) and **Dipak Ghosh** (Jadavpur University)

Music is one of the most effective art-forms to elicit human emotions. Using this property, we have used Sitar-renditions of Indian Classical Music (ICM) as input stimuli to study and compare three emotional states viz. happiness, sadness, and calmness in two groups of participants, one with prior Indian-music training of more than 5 years (trainee musicians or TM), and the other group without any such training (non-trainees or NT), with the help of brain imaging technique of EEG and several neural signal parameters. Clips with highest intensity-levels of happiness, sadness and calmness (from prior audience response survey) were chosen for the EEG experiment, which was performed on 20 participants (10 TM, 10 NT) to study and compare the corresponding alpha-theta neural-signal characteristics, and cross-correlation trends. Using robust non-linear techniques of Multifractal Detrended Fluctuation Analysis (MFDFA) and Multifractal Detrended Cross-correlation Analysis (MFDXA), the signal-complexity, asymmetry, and inter-hemispheric cross-correlation patterns in the extracted neural-responses were computed and thereafter verified statistically. Using rest-condition as baseline, results showed majorly alpha-theta suppression (lower complexity) for music-generated emotion states of happiness, sadness and calmness in both TM and NT-groups, and a distinct trend of higher inter-hemispheric lobe-connectivity in parietal and occipital lobes of TM. This might be attributed to years of musical-training, strongly affecting neural-connectivity and hemispheric-synchronization. This study explores how the two participant-groups react to the three target emotional-states generated from instrumental-renditions of ICM, and what neural parameters work as markers of prior-Indian-musical-training.

Keywords: Musical training, EEG, emotion, Indian Music

"Perceptual Awareness" In the Training of Instrumentalists and Vocalists: Selected Aspects

Małgorzata Kądziała (University of Silesia in Katowice) and **Wiktoria Szymczyk** (University of Silesia in Katowice)

Assessment of students' progress and learning outcomes in classical music relies largely on aesthetic judgments, shaped by teachers based on the sound of the student's performance (i.e., auditory perception) and accompanying observations of the performer's body movements. Both of these elements, while useful in the learning process, do not provide the learner with information about the processing of sensory data by the body's intrasomatic perceptual systems, which is crucial for acquiring self-awareness. In this presentation, we aim to discuss selected types of sensory experiences experienced by students, representing three types of perception: exteroceptive (i.e., from outside the body), interoceptive (i.e., from within the body), and higher-order (i.e., represented in the interpretation made by students during music performance). We will analyse these using selected examples from the education of Polish vocalists and violinists, in selected neurocognitive and cultural contexts. We will also examine the phenomenon tentatively termed "sensory movement." The proposed analyses aim to demonstrate the importance of knowledge of sensory perception for the development of self-awareness and instrumental and vocal competencies.

Keywords: Culture, Self-connection, Self-regulation

Adaptation of the Absorption in Music Scale (AMS) to Brazilian Portuguese: preliminary study

Maxciel Zortea (Universidade Federal do Rio Grande do Sul)

Absorption is defined as an effortless, non-volitional deep involvement with the objects of consciousness. Reduced self-consciousness and increased feeling of connectedness have classified absorption as a self-transcendent experience. Music is one type of art that can evoke cognitive and emotional responses. Nevertheless, not everyone experiences absorption while listening to music. The Absorption in Music Scale (AMS) (Sandstrom & Russo, 2013) was developed to measure the ability and willingness to be emotionally drawn in by musical stimuli but has not been validated to Brazilian Portuguese language. Absorption in music may present

differences across cultures, considering music styles, music use and cultural aspects that shape thoughts and feelings associated with music. This study aimed to present a translation of the Brazilian Portuguese version of the AMS. The instrument contains 34 items to which participants report their agreement (from strongly disagree to strongly agree) on a 5-point Likert scale. The translation process involved a research team for the first translation followed by a back-translation by an English native-speaker and a final revision to dismiss any inconsistency. This version was analyzed by three expert judges in the area that assessed comprehensibility, congruency and relevancy of each item. Finally, a group of 10 adults with various levels of music training responded to the instrument and provided qualitative appreciation. This adaptation opens an avenue not only for the use of professionals but also for future research investigating the benefits of musical interventions for clinical and non-clinical populations and its relation to absorption and transcendent experiences.

Keywords: Emotion, Transcendent experiences, Psychometrics

Music-based interventions in post-intergroup conflict settings: A systematic review

Gabriela Sarmiento-Cabrera (University of Jyväskylä), **Joshua S. Bamford** (University of Jyväskylä) and **Rhea L. Arini** (University of Lincoln)

Understanding how to promote social bonds and trust in communities that have been impacted by intergroup conflict is key for their recovery (Fiedler & Rohles, 2021). Interventions promoting reconciliation play an important role by providing spaces for socially fragmented groups to reconcile (Espinosa et al., 2023). The contact theory is a useful theoretical framework for evaluating these interventions, as it posits that interactions between members of opposing groups may reduce prejudice and improve intergroup relations (McKeown & Dixon, 2017). Music-based interventions have emerged as an innovative and promising strategy for (re)building social cohesion in communities affected by conflict (Marsh, 2019). However, empirical research in this area remains largely qualitative (Kilpi, 2025); which provides insights into participants' experiences and contextual factors, but have a limited ability to systematically evaluate effectiveness, compare interventions, or generalize findings across settings. Thus, this systematic review aims to understand the scope and type of quantitative evidence on music-based interventions aimed at promoting

social cohesion in communities engaged in peacebuilding processes following intergroup conflict. The articles included in the review will be empirical, peer reviewed, published in the last 15 years in English, Portuguese, or Spanish. They will use quantitative methods and focus on music interventions being implemented in post-conflict contexts. A JBI risk of bias assessment will be performed, to evaluate for selection, performance, and confounding bias. The findings will be analyzed in light of the principles of intergroup contact theory, and their implications for theory and practice will be considered in the discussion.

Keywords: Intergroup conflict, Social bonding, Music-based interventions

What does the Speech-to-Speech Synchronization Test actually measure?

Carlos Magallanes-Aranda (Universidad Nacional Autónoma De México) and **María Florencia Assaneo** (Universidad Nacional Autónoma De México)

The Speech-to-Speech Synchronization Test (SSS-Test) is a brief behavioral protocol that identifies two groups within the general population: high synchronizers, who readily align their syllabic production rate with an external auditory rhythm, and low synchronizers, who show reduced synchronization ability. Since its introduction, the test has been widely used to investigate individual differences in cognitive performance and in functional and anatomical brain organization. However, the mechanisms underlying this group segregation remain debated. One account proposes that sensory-motor coupling strength is the main determinant, whereas an alternative hypothesis suggests that high synchronizers rely strongly on feedforward control, while low synchronizers depend more on feedback mechanisms.

To examine these competing explanations, participants classified with the SSS-Test (35,33 low/high synchronizers) completed the production component of the Battery for the Assessment of Auditory Sensorimotor and Timing Abilities (BAASTA). A detailed behavioral analysis revealed group differences in paced finger-tapping tasks, consistent with stronger sensory-motor coupling in high synchronizers. Differences also emerged in unpaced tapping tasks, where highs showed greater temporal stability, suggesting enhanced feedforward control. Thus, behavioral results alone appeared to support both interpretations.

To reconcile these findings, we developed a biophysical model based on a neural mass oscillator coupled to sensory input. Following the original hypothesis, low/high synchronizers differed only in sensory–motor coupling strength. Despite its simplicity, the model reproduced the observed behavioral pattern across tasks. These results show how computational modeling can clarify apparently contradictory behavioral findings and provide strong evidence that SSS-Test performance primarily reflects differences in sensory–motor coupling.

Keyword: Movement

Harmonizing Healthcare: Connecting Medical and Music Students through Interprofessional Experiential Learning

Nannapat Jeamanukoolkit (Mahidol University), Panarin Srikumroon (Mahidol University), Pasit Chingskol (Mahidol University) and **Netchanok Singhey** (Mahidol University)

Background: Music and music therapy bridge medicine and the arts, promoting human-centered care through empathy and reflection. However, authentic interprofessional learning (IPL) opportunities between healthcare and music students remain scarce. This program integrated medical and music students through shared workshops, rehearsals, and clinical performances to introduce evidence-informed music therapy principles and foster professional identity formation.

Methods: A mixed-methods pre-post evaluation (n=33) utilized self-reflective questionnaires, selected Intrinsic Motivation Inventory (IMI) items, and qualitative reflections to assess shifts in attitudes, motivation, and understanding of collaborative healthcare.

Results: Quantitative data showed positive shifts across cognitive, empathic, and professional domains. Notably, students' understanding of music therapy as a structured professional intervention (rather than mere relaxation) rose from 30-40% to over 70-80%. Empathy-related items reached over 75% high agreement, reflecting broader perspectives on patient care. Furthermore, 71% reported expanded career awareness regarding music-based therapeutic roles. Qualitative findings highlighted enhanced reflection, recognition of patients as "whole persons," and the integration of humanistic insight into professional identity.

Conclusions: The program demonstrates value as a theoretically grounded, experiential IPL tool. Medical students gained humanistic development, while music students reframed their craft toward therapeutic roles. Despite disciplinary differences, both groups recognized the necessity of arts-based literacy in training. The program served as a catalyst for self-growth and reflection rather than immediate long-term change, encouraging students to re-envision their roles through an arts-based lens. Interdisciplinary initiatives effectively foster humanistic growth by challenging traditional professional boundaries.

Keywords: Identity, Social bonding, Wellbeing

From leisure to labor: Do professional musicians benefit less from active music-making than amateurs?

Clarissa Konzett (University of Innsbruck), **Laura Wechner** (University of Innsbruck), **Hannah Strauß** (University of Innsbruck) and **Julia Vigl** (University of Innsbruck)

Engagement with music is widely associated with enhanced wellbeing and emotional functioning, yet professional musicians frequently report elevated levels of psychological distress. Building on this apparent paradox, the present study applies Self-Determination Theory to examine how motivation and psychological need satisfaction shape everyday musical experiences and whether these processes differ between amateur and professional musicians.

A sample of $N = 318$ musicians completed baseline measures of wellbeing, psychological distress, motivation, and need satisfaction. Of these, $N = 238$ took part in a 14-day experience sampling phase, completing a median of 12 daily reports assessing music-making, affect, motivation, and need satisfaction.

At baseline, professional musicians reported significantly higher psychological distress than amateurs, while no group differences emerged in general wellbeing or life satisfaction. Additionally, amateurs showed higher autonomous motivation, whereas professionals reported higher levels of controlled motivation. At the daily level, days with music-making were associated with increased positive affect, reduced negative affect, and greater need satisfaction. Importantly, these effects were significantly stronger among amateurs than professionals. Multilevel mediation

analyses further indicated that the relationship between motivation and affect was partially mediated by daily need satisfaction in both groups.

Overall, the findings demonstrate that the emotional impact of music-making is shaped less by the activity itself than by the conditions under which it is pursued. While both groups benefit, the reduced affective gains observed among professional musicians suggest more externally constrained engagement, highlighting the importance of motivational quality and basic psychological needs in shaping the psychological outcomes of everyday musical engagement.

Keywords: music-making, amateur/professional musicians, emotion

Solo or Together? How Music Making Context Shapes Need Satisfaction and Well-Being

Laura Wechner (University of Innsbruck), **Clarissa Konzett** (University of Innsbruck), **Julia Vigl** (University of Innsbruck) and **Hannah Strauss** (University of Innsbruck)

Background: Music making is a central leisure activity that promotes emotional regulation and well-being (e.g., Croom, 2015), yet research has not examined how the context of music making — solo versus group — shapes its benefits. Grounded in Self-Determination Theory (Deci & Ryan, 2000), this diary study exploratorily examined whether and how the social context of music making differentially shapes basic psychological need satisfaction and affective well-being. Methods: A sample of 203 musicians (70% amateurs, 22% professionals) completed daily surveys over 14 days, yielding 1,346 days of active music making, of which 487 occurred in a group context.

Results: Participants experienced higher positive emotions, higher well-being, and lower negative emotions on music making days compared to days without music making. All three psychological needs — autonomy, competence, and relatedness — were significantly more satisfied on group music days than on solo days ($d = 0.16\text{--}0.21$). Competence showed a stronger association with well-being in solo contexts, whereas autonomy and relatedness effects were context-independent. Conclusion: Group music-making uniquely enhances psychological need fulfillment, serving as a means to connect with self and others in everyday life.

Keywords: Wellbeing, Social bonding, Self-connection

Personal Music Listening and Emotional Regulation Amongst US College Adolescents

Nikhil Rughwani (Collegiate School) and **Carol Muller** (University of Pennsylvania)

Background: There has been exponential growth of Personal Music Listening (PML) in adolescents, which intensified during the isolation of the COVID-19 pandemic. Pew Research reports that 95% of US teens (13-17 years old) listen to music/videos at least 2.5 hours per day, a trend linked to the need for emotional regulation (ER).

Aim: This study examines PML as ER among American college students to establish a baseline for how these behaviors function in the US.

Method: Students first completed readings and a 5–7 day PML tracking project modeled on MuPsych frameworks. This preparatory phase informed inductive focus groups, identifying music usage patterns during the pandemic and college transition. Themes were then used to develop a 20-item Likert-scale survey (N=54) and perform deductive coding on qualitative reflections (n=27). Chi-square tests confirmed significant, non-random patterns ($p < 0.05$).

Results: Focus groups identified five core themes: emotional impact, connection and shared experience, memory, change and exploration, and culture and identity. The surveys revealed significant patterns ($p < 0.05$), emphasizing childhood music for comfort and emotional processing. Qualitative essays characterized music as a vital "social surrogate" and "emotional toolkit."

Conclusion: While research on adolescent PML for ER is concentrated in Europe and Australia, this study establishes a baseline for these behaviors in the US. Findings demonstrate that PML is a sophisticated cultural practice and critical resource for ER. Future research will shift to marginalized adolescents and their usage of PML for self-care to navigate toxic stress and adverse childhood experiences.

Keywords: Emotion, Mental Health, Self-Regulation

Community Music and Service-Learning in Higher Education: Pilot Study in Music Education Pedagogy in Romania

Daniel-Alex Milencovici (West University of Timisoara) and **Anca Simion** (Babeş-Bolyai University in Cluj-Napoca)

This study explores “Community Music” as a specialized pedagogical methodology centered on access, participation, and inclusion, extending beyond its traditional perception as an extracurricular activity. By integrating music education with a Service-Learning framework, the learning process is redefined as an act of hospitality, where students become facilitators of safe, creative environments that encourage experimentation and expression. Within this approach, music is positioned not only as a subject of study but as a tool for fostering social cohesion. The pilot study is grounded in three key dimensions: experiential learning, where students engage in cycles of action, reflection, and conceptualization through direct interaction with diverse social groups; the social pedagogy of music, emphasizing inclusion and the reduction of communication barriers among vulnerable populations; and the development of cross-curricular competencies such as empathy, adaptability, and civic responsibility. In this context, artistic practice evolves into a form of active citizenship. During the 2025–2026 academic year, an innovative assessment strategy was implemented within the course Music and Music Education Pedagogy for students specializing in Primary and Preschool Education. Seminar competencies were evaluated through community-based musical interventions, including workshops, dance activities, singing sessions, podcasts, and choral projects, targeting children, students, adults, and elderly individuals in various social contexts. The initiative aimed to transform theoretical knowledge into meaningful practice with measurable social impact, supporting holistic development and well-being. Outcomes were assessed using structured DEAL model that capture academic, personal, and civic growth, reinforcing the role of music as a catalyst for social transformation and educational innovation.

Keywords: Empowerment, Experiential Learning, Music Education Pedagogy

Grief Schema and the Iso Principle: Individual Differences in Music Regulation After Romantic Loss

Ling-Yao Chien (Yang Ming Chiao Tung University) and **Wen-Rui Kuo** (Yang Ming Chiao Tung University)

Music is a primary self-regulatory tool during romantic grief, yet its neural efficacy varies substantially across individuals. Across two fMRI studies of women following unwanted romantic breakups, we investigated how individual-level grief-schema complexity and the therapeutic structure of music sequences jointly shape neural and autonomic responses to music.

In Study 1 (N = 22), we derived a Semantic Complexity Index (SCI) from naturalistic grief-period playlist lyrics using multilingual sentence embeddings. A 3 (music: major-mode, minor-mode, control) × 2 (photo: ex-partner, acquaintance) paradigm revealed that the SCI × BDI interaction explained 52% of variance in vmPFC–NAcc connectivity during major-mode music in the grief-relevant context. Critically, neural–affective coupling was intact in the low-relevance acquaintance condition but absent across all ex-partner conditions, indicating grief-schema-driven decoupling. For schema-congruent music, hippocampus–insula connectivity selectively predicted emotional ratings in high-SCI individuals, revealing a schema-gated memory–interoceptive pathway.

In Study 2 (N = 30), simultaneous fMRI and HRV recordings compared an Iso-based (sad–calm–happy) versus control (happy–calm–happy) music sequence. The Iso condition enhanced HRV and produced a two-stage neural shift: initial auditory–limbic connectivity gave way to prefrontal top-down regulatory engagement, providing neurophysiological evidence for the Iso principle's therapeutic mechanism.

Together, these findings support a schema-informed precision framework for music-based emotion regulation, in which schema complexity gates both reward-circuit recruitment and the efficacy of Iso-structured therapeutic intervention.

Keywords: Emotion, Self-regulation, Iso principle

Psychophysiological synchronization between performer and audiences in an acoustic concert

Kazuaki Honda (NTT, Inc.), **Miwa Miwa** (Keio University), **Naoki Saijo** (NTT, Inc.), **Tomohiro Samma** (Keio University), **Yuna Sakakibara** (Keio University), **Mizuki Komine** (Keio University), **Makio Kashino** (Keio University) and **Shinya Fujii** (Keio University)

The transition from in-person concerts to livestreamed performances has raised the question of how audience engagement differs across performance contexts. While related research indicates that the physical presence of a performer enhances social and physiological responses (Kragness et al., 2025), it remains unclear whether audience reactions are more strongly shaped by direct coupling with the performer or by collective dynamics within the audience. In this study, psychophysiological responses were compared across three conditions: in-person, remote live-streamed, and solo viewing.

Sixty-five participants attended an acoustic guitar concert, either in person, via remote live-stream, or alone. The heart rates (HRs) of the performer and audience members were measured using wearable electrocardiography. The strength of physiological synchronization was assessed using the correlation coefficients between the HR of all pairs of audiences in each condition and the HR of all performer–audience pairs. Furthermore, the audience members tapped their smartphone screens when they felt moved, and these tap timings were recorded as a measure of subjective performance rating.

Physiological synchrony among audiences and tap-timing synchrony tended to be highest in the in-person condition. In contrast, the coupling between the performer's HR and each audience member's tapping time series exhibited no consistent differences across conditions. These results suggest that the increased synchrony in the in-person condition might be better explained by collective dynamics within the audience than by enhanced individual coupling to the performer.

Keywords: Emotion, Live concert, psychophysiological synchrony

Can We Hear a Listener's Age in the Music They Find Meaningful?

Iballa Burunat (University of Jyväskylä), **Martin Hartmann** (University of Jyväskylä), **Anastasios Mavrolampados** (University of Jyväskylä) and **Petri Toiviainen** (University of Jyväskylä)

Music we find personally meaningful is rarely chosen at random: it reflects identity and emotional history across a lifetime [1, 2]. If musical preferences shift systematically with age [3], features of meaningful music may carry reliable information about where a listener stands in the lifespan, offering an objective signature of age-related aspects of musical identity.

We examined whether musical features predict listener age. Participants (N = 1,216, aged 16–65, 50.8% female) nominated a single personally meaningful song. Twenty-six features spanning spectral, rhythmic, tonal, perceptual, and contextual dimensions were submitted to a Generalised Additive Model (GAM) with penalised smooth terms, chosen to accommodate nonlinear lifespan change.

The GAM explained 9.6% of variance in age, a 43% improvement over a linear regularised baseline. Acoustic–age relationships included both linear patterns (quieter music and higher-valence music linked to older age) and nonlinear ones (spectral centroid showed a confirmed inverted-U, with spectrally extreme music—very dull or very bright—linked to younger age; tempo showed a U-shape present only in males). Gender moderated acoustic–age associations for five features, with tempo, instrumentality, fluctuation centroid, and danceability predicting age exclusively in males, and track popularity exclusively in females.

These results indicate that what people find meaningful in music shifts systematically across the lifespan, in ways consistent with age-related changes in emotional orientation [4] and the functions music is asked to serve at different life stages [2].

Keywords: identity; emotion; self-connection

Voice induced affective empathic processes in the anterior insula

Veeda Kala (Estonian Academy of Music and Theatre)

Vocal music can elicit affective empathy in listeners (Huron & Vuoskoski, 2020). Studies mapping the brain areas related to affective empathic processes to visual stimuli have repeatedly pointed to the importance of the right anterior insula (AI) (Fan et al., 2011). Empathy toward vocalizations are largely unexplored. In this study, JAVMEPS set B nonmusical vocal emotional stimuli (von Eiff et al., 2024) are tested for three hypothesis: (1) the clarity of an emotional vocalization is correlated positively with ventral AI and (2) negatively with dorsal AI activity and (3) the higher the person scores in the empathy scales, the greater the higher the embodiment and activity in right AI is measured. Additionally, a battery of sung emotional stimuli is developed and validated. The results of this study would pave the way in understanding the neural foundations of affective empathy in auditory only settings.

Keywords: social-bonding, emotion

6 ORAL PRESENTATIONS

Thursday 24 September

Session 8A - Music and relationships

Examining communal, focused music listening experiences

Amanda Krause (James Cook University), Hannah Taylor (LaTrobe University), Te-neale McGuckin (James Cook University), Sandra Garrido (University of Sydney), Alex Crooke, Eloise Whitehead (University of Melbourne) and Matt O'Leary (Sonaur)

Background and aims: Recent research suggests that communal, focused music listening experiences have real potential for improving individual well-being, but research is needed to understand how these types of events are developed as well as their specific well-being impacts. The present research was guided by two research questions: (1) What outcomes (e.g., benefits to mood, self-regulation, mind/body awareness) arise from people experiencing focused listening experiences; and (2) What role do programming elements (e.g., physical space, acoustics, music, facilitation) have on people's attendance motivations and outcomes?

Method: We used a qualitative, collaborative action research paradigm. Individuals who attended a focussed listening experience (n = 4 sessions) were invited to participate in individual, semi-structured interviews following their session participation. All interviews were transcribed and the transcripts were used to undertake a thematic analysis. Additionally, observation notes were taken by a researcher during each session.

Results and Discussion: Data analysis is underway ($n = 26$ [$M_{age} = 36.42$]). A thematic analysis in progress has identified three preliminary themes: session parameters, experienced outcomes, and perceived participation barriers/enablers. Additional analyses drawing on the Context-Mechanism-Outcome framing of realist evaluation will be discussed. Discussion of the results will centre on people's subjective experiences including their perceived impact on self-regulation and connection to self and others, alongside the role that programming elements play in perceived outcomes. Study findings have implications for our understanding of the ways that focused music experiences can be used in peoples' everyday music engagement as well as more formal practices to promote well-being.

Keywords: self-regulation, well-being,

In Tune or Out of Sync? Music Preference Similarity in Couples and Relationship Outcomes

Julia Vigl (University of Innsbruck), **Felix Lene Ihrig** (University of Vienna), **Miriam Greif** (University of Innsbruck) and **Marcel Zentner** (University of Innsbruck)

Assortative mating in romantic relationships has long been a subject of research, with studies suggesting that people tend to seek similar rather than complementary partners. Although partner similarity in sociodemographic variables, personal values, interests, daily habits, or personality traits have been widely studied, less attention has been paid to similarity in aesthetic dispositions. Music preferences offer a particularly interesting area of study, because they have been found to reveal rich information about a person's psychological makeup, including information that individuals seem to consider when forming relationships, for example by showcasing favorite music on dating apps or discussing music during first encounters. In an initial study and two replications with extensions, we assessed the profile similarity of couples ($N_{couples} = 309$) in terms of music preferences (using both genre-based and artist-based measures), personal values, and Big Five personality traits. Additionally, we pooled the data for a mini meta-analysis so as to provide a more robust evaluation of our research question. Our results consistently show that couples exhibit more similar music preferences when compared to pseudo-couples, and that the degree of similarity in music preferences exceeds the degree of similarity in personal values and personality traits. Finally, only similarity in music preferences predicted relationship quality, even after controlling for similarity in personality traits, personal

values, and covariates. We discuss implications for mate choice, relationship maintenance, and the social-emotional functions of music.

Keywords: music preferences, personality, romantic relationships

Reorientation through connection, reflection, and renegotiation of identity: the role of music

Elizabeth Fair (University of Leeds), **Alinka Greasley** (University of Leeds), **Emily Payne** (University of Leeds) and **Matthew Allsop** (University of Leeds)

After a bereavement, people may need to reconnect with themselves, others, and the deceased (Guldin & Leget, 2023). Music's roles in reducing loneliness (Schäfer et al., 2020), supporting emotional regulation (Groake & Hogan, 2016), and in mourning rituals (Viper et al., 2022) suggest it may be important in this process, yet little is known about how bereaved individuals use music in everyday life following bereavement.

This qualitative study explored how and why bereaved individuals engage with music for emotional regulation after bereavement. Sixteen participants took part in a 45-minute semi-structured interview, followed by three once-monthly journal entries, and a final interview. Data were analysed using Braun and Clarke's (2021) reflexive thematic analysis.

Initial findings suggest music helped participants reorient after loss by supporting connection with self, the deceased, and others. Music listening enabled self-reflection and engagement with renegotiated identities, while also helping maintain 'continuing bonds' with the deceased (Klass & Steffen, 2018). Group musical activities, including choirs, fostered belonging and social connection. However, participants also described instances where music felt intrusive, offensive or isolating. These findings align with existing research on music, emotional regulation, and loneliness by showing how music may both support and disrupt connection after bereavement (O'Callaghan et al., 2013; Merrill et al., 2022). They suggest music could be considered within bereavement support, while underlining the need for sensitivity to diverse and sometimes difficult musical responses. The study also highlights the value of longitudinal qualitative approaches for understanding how music shapes connection across personal, social, and temporal contexts.

Keywords: relationships; wellbeing; self-connection

Music and military uniform: effects on women's attraction to men

Naomi Ziv (College of Management) and **Gilad Eisenberg** (College of Management)

Playing a musical instrument makes males more attractive to females, with different genres and instruments associated with more masculine or feminine attributions. In addition, military uniform is associated with masculine traits, and previous studies have shown that men in military uniform are perceived as more attractive.

The study aimed to examine the effect of these two variables on women's ratings of men. The study was conducted online in Israel, where military service is mandatory. In a 3x2 between-subjects design, 212 young women viewed a clip of a young man playing classical/ electric guitar or writing, either in civilian clothing or military uniform. They rated the man on positive traits (9 items), negative traits (3 items) and attraction (6 items).

A main effect of music on positive traits ($F(2,206) = 4.076, p = .018$) showed classical guitar led to highest scores; a main effect of music on negative traits ($F(2,206) = 7.371, p < .001$) showed electric guitar led to highest scores. No main effect of uniform was found. An interaction between music and uniform was found for negative traits ($F(2,206) = 3.364, p = .037$) and for attraction ratings ($F(2,206) = 3.595, p = .029$), showing electric guitar in civilian clothing led to highest negative traits, and playing classical guitar in uniform led to highest attraction scores.

The higher attraction scores for classical guitar in uniform suggest that the combination of positive traits, associated with classical guitar, and masculinity, signalled by military uniform, is perceived as most appealing.

Keywords: attraction, masculinity, trait attribution

Session 8B - Identity And Connection

Ageing musical identity and music-supported social attachments. A qualitative study with older adults

Heini Siltainsuu (University of Jyväskylä), **Henna-Riikka Peltola** (University of Jyväskylä) and **Suvi Saarikallio** (University of Jyväskylä)

Music is known to connect strongly to one's identity and wellbeing, and these connections have gathered much research interest in recent years, especially among younger people and musicians. So far, the musical identity of an average ageing individual, constructed in a dynamic relation to surrounding people across the lifespan, has not been conceptualized. These two substudies shed light to the constructions of an aging musical identity and music-supported social attachments over the lifespan, seen from the perspective of later years.

A sample of 18 western older adults aged 62-91 (home residing, no formal music education background) shared their musical life narratives in written form and in interviews (n=14/18). Reflexive Thematic Analysis (RTA) and Interpretative Phenomenological Analysis (IPA) were conducted on this rich data, to see what could an ageing musical identity look like in the experiences of these participants, how has music supported social attachments and how has music contributed to their wellbeing in the course of life.

Our findings suggest that the ageing musical identity is a dynamic process of self-connection, stemming from supportive or suppressive musical affective selves, and later continuing as maintenance or transformation oriented identity processes. Furthermore, it seems that music can support social attachments in many different layers of proximities over the life course, and help an individual to control and relocate attachments in their lives. This study contributes to understanding music's full potential in ageing individuals' subjective wellbeing and offers insights into the identity processes of the later years.

Keywords: identity, wellbeing, ageing

Music and membership: Applying the social identity approach to music identities

Anthony Moles (James Cook University) and Amanda Krause (James Cook University)

Context: Music can be an important feature of social groups, such that family, friendship circles, and cultural groups have all been identified as influencing people's musical identities. Individuals determine their level of identification with social groups by their perceived similarity to shared group characteristics, which may include musical attributes. Identification - the importance of the social group to the individual, their affective response to membership, and their bonds with other group members - may be conceptualised as social identity.

Aims: This qualitative study asks how group memberships relate to the expression of adults' music identities, as interpreted through the lens of the social identity approach.

Methods: Semi-structured online interviews are being conducted with adults residing in Australia. Maximum variation sampling has been used to target a sample who vary regarding their music identity and engagement (e.g., professional musicians; individuals with little interest in music). Responses will be analysed using a deductive thematic analysis drawing on the social identity approach.

Results: Data collection is underway. Findings will be discussed, focusing on how musical identities reflect the mutual interactions between the self and the social group.

Implications: By conceptualising music identities as social identities, the present study's findings have implications for understanding of how social identity processes affect musical identities, which may inform strategies for increased engagement and identification with music and musical communities.

Keywords: Identity, social bonding, relationships

Session 9A - Digital, Virtual, and AI Music

Online music engagement enables discovering appropriate music for identity construction and social connection in youth

Henna-Riikka Peltola (University of Jyväskylä), **Johanna N. Dasovich-Wilson** (University of Jyväskylä), **Lotta Kourilehto** (University of Jyväskylä) and **Suvi Saarikallio** (University of Jyväskylä)

Young people living in contemporary Western societies have grown up with digital technology since birth. For them, social media has long been a key means of connecting with friends, as well as engaging with entertainment and other cultural phenomena. Music streaming platforms have radically transformed the ways in which music is consumed and experienced; however, relatively little research has focused on the role of different social media platforms in music engagement (Siles, Valerio-Alfaro & Arriagada, 2024). In this study, we explored how digital technology, music platforms, and online social environments are used for music engagement in young people's everyday lives by asking: (1) what kinds of strategies young people employ for online music engagement, and (2) in what ways online technology enables identity construction processes and social connection through music engagement. We analyzed digital diary entries and interviews from 23 participants (aged 15–25) who documented their use of online environments and technologies for music engagement in the form of photographs and screenshots. The data were analyzed using reflexive thematic analysis (Braun et al., 2022). Our preliminary results suggest that digital technology and social media platforms provide easy access to engaging with and sharing music in young people's everyday lives, which is linked to multiple psychological and social strategies relevant to youth identity construction and social connection.

Keywords: Youth, identity, agency

Emotional and listener-specific properties of music interact to influence episodic memory for immersive virtual scenes

Safiyyah Safiyyah Nawaz (Goldsmiths University of London), **Ju Zhang** (University of Greenwich), **Marco Gillies** (Goldsmiths University of London) and **Diana Omigie** (Goldsmiths University of London)

Studies examining music's effects on episodic and autobiographical memory show that both emotionality of music and an individual's personal relationship with the music shape encoding, consolidation and retrieval. However, these effects have not been tested in immersive, ecologically-valid paradigms, nor has the neural activity underlying music-supported memory been fully characterised. Across two virtual-reality (VR) studies, we developed a novel episodic encoding task and combined it with mobile EEG: in Study 1, participants (n=46) experienced ten immersive 360-degree VR scenes, each paired with experimenter-selected or participant-sourced music varying in emotionality; in Study 2 (n=40), participants completed an expanded version of the task, encoding twenty scenes accompanied by personally-provided music while 32-channel mobile EEG recorded the brain's oscillatory activity. In both studies, memory was tested one week after encoding, with an additional four-week post-encoding test in Study 2.

Across the studies, converging evidence highlighted emotion-based and listener-specific influences on memory formation. We found positively valenced music – and especially positively valenced-low arousal music in Study 2 – to support scene encoding for participant-sourced songs. In Study 2 we also found that arousal and valence support consolidation for less familiar music, and that negative valence predicts music-evoked retrieval success. Neural analyses revealed distinct markers of successful encoding, with reduced late-trial frontal midline theta predicting vividness after one week, and greater early-trial right frontal alpha predicting earlier free recall after four weeks. Together, these studies highlight the importance of emotion and personal relevance of music in shaping mechanisms relevant in naturalistic memory formation.

Keywords: Emotion, Identity

Human, AI, or Both? How Composer Identity Shapes the Way We Connect with Music

Petrus Sillanpää (University of Jyväskylä) and **Dana Swarbrick** (University of Jyväskylä)

Recent advances in artificial intelligence (AI) have enabled the creation of music that closely resembles human-composed works, raising questions about how listeners perceive and evaluate music.

While prior research suggests listeners often exhibit a bias against AI-generated music, most studies have focused on aesthetic judgments such as liking or quality, leaving the social-emotional dimensions largely unexplored. This is a notable gap, given that music listening is fundamentally a social experience, deeply tied to feelings of connection with both the music and its creator.

The present study investigated how purported composer identity influences listeners' appreciation, social-emotional responses, and behavioral intentions. Using a within-subjects experimental design, 75 adult participants listened to identical human-composed classical music excerpts labeled as either human-composed, AI-composed, or human–AI co-composed. By holding the musical material constant while manipulating composer identity, the study isolated the effects of cognitive and social biases related to AI involvement. Participants evaluated each excerpt on measures assessing appreciation, social connectedness to the composer and the music, emotional responses, and behavioral intentions. Data were analyzed using linear mixed-effects models.

Results showed that perceived composer identity significantly affected most measures, with ratings decreasing as AI involvement increased. Crucially, feelings of connectedness—both to the composer and to the music—were affected, with AI-composed and human–AI co-composed music eliciting significantly lower connectedness to the composer and music than human-composed music. These findings highlight the deeply social nature of music and suggest that AI involvement disrupts not only aesthetic appreciation but also the human connection that makes music meaningful.

Keywords: Artificial intelligence, social bonding, emotion

"Is This Even Real?" Discourse and Engagement Dynamics of AI-Generated Music Across Social Media Platforms

Gianmarco Tonelli (University of Pisa)

The circulation of AI-generated music on social media platforms raises questions that remain largely unexplored from a reception standpoint: how do listeners perceive, evaluate, and legitimize music created by generative models? And to

what extent does transparency about the AI nature of a track influence the way audiences relate to it?

This study addresses these questions through a two-component design that captures complementary moments of the same phenomenon. The first component consists of a computational discourse analysis on Reddit, employing sentiment analysis and topic modeling techniques applied to a corpus of comments extracted from relevant subreddits. The aim is to map the interpretive frames through which users position themselves toward AI music, from creative enthusiasm to inauthenticity, and from anxiety about human music's future to shifting aesthetic values. The second component shifts from the plane of discourse to that of consumption, analyzing engagement metrics on TikTok (likes, comments, shares) of AI music creators who openly disclose the synthetic nature of their output compared to creators who conceal it. If Reddit reveals how users interpret and negotiate the meaning of AI music, TikTok shows how they consume and circulate it; comparing these two planes allows us to assess where critical discourse and consumption behavior converge or diverge.

The expected results will contribute to clarifying how AI music mediated by social platforms interacts with processes of emotional connection, identification, and agency among listeners, key dimensions for understanding music as a psychological resource in the contemporary digital ecosystem.

Keywords: Identity, AI Music, Social Media

Emotion Regulation Strategies used while Listening to Music: MusiConnect to HARMONIC

William Randall (University of Jyväskylä)

Adaptive emotion regulation is fundamental to psychological wellbeing, while dysregulation is central to the development of mental disorders in youth. For young people, music listening is the single most-used emotion management strategy - an accessible, flexible resource that allows them to alter their emotions in almost any context. Despite this, research has been limited in determining when this everyday self-regulation supports mental health, and when it might quietly undermine it. To address this, MusiConnect has used the experience sampling app MuPsych to

investigate how young Europeans use music for everyday emotional self-regulation. In the next stage, HARMONIC will integrate this ESM data with Digital Ethnography data, which was collected separately in MusiConnect. It will combine the strengths of these two innovative, ecological methodologies to produce a comprehensive taxonomy of the emotion regulation strategies used by young Europeans during everyday music listening. It will also determine the conditions under which each of these strategies can be considered either adaptive or maladaptive. This presentation will explore the MusiConnect ESM data on regulation strategies, and discuss the future of the HARMONIC project.

Keywords: Emotion Regulation, Youth Mental Health, Everyday Music Listening, Experience Sampling Method, Digital Ethnography

Predicting emotional outcomes in everyday music listening: An evaluation of music, contextual and listener features

Anastasios Mavrolampados (University of Jyväskylä), **William Randall** (University of Jyväskylä), **Martin Hartmann** (University of Jyväskylä), **Suvi Saarikallio** (University of Jyväskylä) and **Petri Toivainen** (University of Jyväskylä)

Predicting emotions in music is a central topic in music information retrieval and music psychology. Many existing approaches rely only on audio-derived information and reductionist settings devoid of social context, raising concerns about their generalizability to real world situations. This study investigates the efficacy of listener, contextual, and acoustic features in predicting induced and perceived valence and arousal in everyday music listening. A mobile experience sampling app (MuPsych) recorded 9609 real-time naturalistic music listening experiences of 1337 participants. Features were grouped into 5 sets: pre-listening emotional state, listening context, music ratings, acoustic features, and a combined set of all. We compared 3 models of increasing complexity: a linear Lasso-regularized baseline, an XGBoost model, and a shallow Neural Network. Results showed that induced valence and arousal were predicted primarily from pre-listening mood, with smaller contributions from contextual variables and music ratings, while acoustic features provided no predictive power. Acoustic features explained modest amounts of variance for perceived arousal. Arousal had higher prediction scores than valence and the non-linear models did not yield consistent gains compared to the linear baseline. Findings suggest that music listening is context and listener-dependent, and that

acoustic features alone are insufficient for modeling emotions in naturalistic settings. The results highlight the importance of extra-musical factors and caution against transferring models trained on controlled datasets to real-world affective computing applications.

Keywords: Emotion, everyday music listening, music information retrieval, music emotion recognition

Everyday music listening fosters connectedness in youth

Lotta Kourilehto (University of Jyväskylä), **Henna-Riikka Peltola** (University of Jyväskylä), **Suvi Saarikallio** (University of Jyväskylä) and **Elina Westinen** ((University of Jyväskylä/Finnish Youth Research Society)

Young people today are increasingly affected by depression, anxiety, social isolation, and loneliness (World Health Organization, 2025a; 2025b), which has profound effects on individuals' well-being. Given these challenges, one promising way to promote well-being is to foster a sense of connectedness to self, others and the world (Watts et al., 2022). Since music is inherently a social phenomenon embedded in young people's psychosocial realities, it may serve as a valuable tool for facilitating connectedness. Previous research on music's social functions has primarily examined group-based or participatory forms of musical engagement, whereas studies on music listening have focused mainly on intraindividual functions. Therefore, more research focusing specifically on the social aspects of music listening is needed to better understand how everyday music listening can foster connectedness and psychosocial wellbeing in youth. This study explores the social aspects of music listening through the concept of connectedness, which refers to linkages with various aspects in self, others and environment. The aim is to gain in-depth understanding of the social aspects of music listening in the lives of young people. The research question reads as follows: How does music listening contribute to young people's social experiences and sense of connectedness in everyday life contexts? Finnish participants (15-25-year-olds; N = 64) collected digi-ethnographical material such as photos and videos of music in their daily lives. After a one-week period of this data collection, an interview focusing on these participants' musical experiences was conducted. The interview material was analysed by two coders using applied thematic analysis. Through the analysis, three main themes were identified: (1) self-disclosure and gaining social awareness, (2) forming and maintaining relationships and identity,

and (3) managing self and social space. Our study empirically identifies that everyday music listening involves complex psychosocial processes that contribute not only to interpersonal relationships, but also to listeners' relationship to self and the environment. Music listening emerges as an activity in which intrapersonal and interpersonal functions actively merge and dialogue, fostering connectedness with self, others, and the wider world.

The findings suggest that social aspects of music listening are not restricted to a specific set of previously identified "social functions" distinct from individual functions. Rather, the social experience is deeply intertwined with processes of self-exploration, self-regulation, and self-disclosure. Future cross-cultural and lifespan research on everyday music listening may reveal how music fosters connectedness in culturally and developmentally specific ways, thereby influencing individuals' overall health and well-being.

Keywords: Identity, Self-connection, Social bonding, Relationships, Wellbeing, Youth

Music in everyday life: How daily musical experiences shape mood, emotion, and social feeling

Agnieszka Siry (Jagiellonian University in Kraków) and **Romuald Polczyk** (Jagiellonian University in Kraków)

Music, as a pertinent element of everyday life, is often used to regulate emotions and support well-being. Musical engagement has also been shown to result in social bonding, empathy and prosociality. However, most evidence comes from laboratory or cross-sectional studies, so less is known about how music relates to emotional states in daily life. Our study examined whether everyday engagement with music is associated with within-person changes in mood and music-evoked emotions, including feeling moved.

A diary study was conducted with 35 participants across five consecutive days of completing two to three reports per day. At each measurement, participants reported recent musical activities, current mood, music-induced emotions and positive and negative social experiences. Data were analysed using linear mixed-effects models separating within-person and between-person variance.

When participants engaged with music more than usual, they reported stronger positive music-evoked emotions and greater feelings of being moved. During music episodes, greater liking of the music was associated with more positive mood, higher energy, and stronger positive music-induced emotions. Liking also showed a tendency to relate to lower negative music-induced emotions and greater feelings of being moved. A significant within-person interaction showed that when negative social experiences were higher than usual, music engagement predicted increased positive and decreased negative emotions.

The findings indicate that everyday musical activities may serve as situational emotional resources, especially under adverse social conditions. Additionally, feeling moved may be one mechanism through which music supports connection and meaning in everyday life.

Keywords: diary study, mood, being moved