Musical parameters of communicaive musicality

Malloch and Trevarthen identified thee musical parameters:

- pulse: regular succession of events through which coordination is possible
- quality: form contours of expression (vocal and gestural) that move and evolve though time
- narratives: create a sense of sympathy and situated meeting between parent and child

These three parameters are uniquly musical features, distinct from language based communication.
references_1.2

Lecture Notes

Six theories to engage this semester:

Evolutionary Theory

- Reproduction
- Social connection

Social Theory

- Affordances of Music
- Social context

Musicology

- Action of musicking
- Cultural context

Music Psychology

- Laboratory studies
- Communicative musicality

Music Thrapy

- Experience studies
- Psychoanalysis

Dr.Imogen Clark's definition of physical activity: any bodily movement resulting from skeletal muscle activation that increases daily energy expenditure
different to off-movements activities
excercise associated with health benefits

WHO guidelines for physical fitness

has developed a set of global guidelines for physical activities
healthy adults - at least 150min of moderateaerobic phsical activity/
75 minutes of vigorousphsical activity per week
great range of health benefits

The link between music and excercise

challenging to excercise regularly
Schneck and Berger: use music as an environmental modifier and stimulus

physiological impact of music:
Clark: complex and changing combinations of music's many elements regulate ANS response (heart rate, respiratory rate, blood pressure, brain activity, muscle tension and hormone secretion)
music also influence mood and emotion
Rhythmic cues: supporting coordination and motivation

Karageorghis and Priest: using music in endurance exercise

Tia de Nora: participant's music selection meets the physical and psychological demands of the exercise

The Brunel Music Rating Inventory 2

A questionnaire designed to facilitate the selection of music that's motivating for excercise rate fitness for excercise based on: rhythm, music style, melody, tempo, sound and beat.
diversly relevant: for healthy adults and older adults in cardiovascular rehabilitation

Musical Variables of Entrainment

Key variables influence physical fitness: those related to the passing of time (rhythm, tempo and form)

> breathing is less likely to entrain than movement?

Rhythm and Excercise

Michael Thaut, "Rhythm, Music and the Brain"
rhythm is the central element that creates and shapes our perception of musical time passing
involves four features, with rhythmic entrainment - an automatic tendency to join in with a beat, being supplemented by priming, cueing and cycles

powerful for both excercise and relaxation

Using the same music to accopmany excercise and relaxation - more effective
recognition will supplment the cueing mechanism

Conclusion

music elements: can be seen asvariables, can also be seen as thereads in a complex web that exists in culture and context

human add additional layers of complexities beyond culture: relted to individual and historical associations - we don't always entrain to music to support physical excercise and relaxation

> Nothing seems to surpass the mind and its propensity to make a life rich and complex

Lecture Notes

Introductions and Background

What led to a fascination in music and physical activity.
Why music with excercise?

Entrainment
stimulus => resoonse

- Direct, dynamic sensorimotor coupling that require minimal cognition

- Marking time in ways that are predictable so the brain can detect patterns
- occures below conscious perception

Rhythm, Tempo, Structure

Music => Analysis of sound stimulus & interval between beats (auditory & motor cortices) => cognitive processing & command to execute moverment (cerebellum) <=feedback | feed forward=> body part (limb) performing movement

Musical meaning

- Melody
- Harmony
- Lyrics

Brunel Music Rating Inventory (Karageorghis et al., 2006)

Personal meaning

- age
- culture
- social associations
- type of actitvity
- mood on the day
- context - where are you excercising?
- how do you listen to the music?

Motivation

Week 3

3.1 Music and Rehabilitation

Dr.Kat

Neurologic Music Thrapy and Behaviourism

NMT is an approach to the application of music that promotes rehabilitation and has aligned with neuroscience.
More concrete aspects of the human experience

Identity Continuity

Identity continuity - a process where people are able to reflect on their past as well as revise and adjust their self concept to reflect their current lives and goals.
Sits alongside growing understand of "post-traumatic growth" - a possible pathway from neurological disability
post-traumatic growth recognizes the fact that traumatic life events can be a catalyst to re-evaluate and reorient their lives in positive ways
Zeligman and colleagues: most likely when having good social support and are able to find meaning in their post-injury lives.

Song Writing in Neurorehabilitation

Widely used by music therapists
Various ways
Baker and colleagues' thematic analysis - positive feedback from patients in songwritting program
songwriting process supported them in fostering identity continuity

Stories From Song Lyrics in Neurorehabilitation

content analysis:

- future-focused songs are shorter
- lyrics more focused on physical changes
- described both negative and positive changes

A Case Example of Music in Neurorehabilitation

Street: 35 year old, sustained an acquired brain injury due to a motorcycle accident
find it valuable to address both functional and psychosocial aspects of rehabilitation together through music
both aspects interact and extend on one another
For Street - an avenue for humor in his rehabilitation journey
How addressing psychosocial goals through music can offer a holistic sense of doing or creating something tangible and fun

Conclusion

People's musical history and their preferences can be a huge asset to their recovery, as well as an indicator of experiences and identity that may have changed (permanently).

Understanding how music can help us flourish

Music use reasons
Live music benefits
Arts on prescription

Why do we listen to music? A uses and gratifications analysis

1. Positive mood Management
2. Diversion or negative mood regulation
3. Interpersonal relationships
4. Personal identity
5. To learn about the others and the world

Music use motivations

Character strength-based attributes as explanatory factors in the wellbeing benefits of music

Transcendence
Emotion regulation
Social reasons
Cognitive regulation

How is music use associated with wellbeing?

Live music events among the most 'social' of music opportunities

Emotions more positive and intense in live music settings

'collective effervescence'

diverse backgrounds

'badge of identity'

Live Music Benefits

The unifying power of live music events: A systematic review of social outcomes for audience members

Primary theme 1: Opportunities for Connection

Primary theme 2: Shared experiences and values

Primary theme 3: An emopowering community

Primary theme 4: Sustained sense of community

Should we 'prescribe' music for mental health?

Social prescription:

"A non-medical community referral program to spport well-being and health"

"A holistic, person-centered and community-based approach to heatlh and wellbeing that bridges the gap between clinical and non-clinical supports and sevices"

How 'arts on prescription' differs from everyday music participation

Referral
Support
Purpose

The impact of arts on prescription on individual health and wellbeing: a systematic review with meta-analysis

connecting the disconnected:
empowering youth to engage in arts and cultural experiences

6.1 Music and pleasure in the brain

Dr Kat

Brain-based Explanations

- Focus on neurochemical responses and brain mechanisms in relation to music and mental health
- Neuroimaging technologies allow more rigorous testing of hypotheses
- Popular association with “sex, drugs and rock’n’roll”

Key Scholars

- **Daniel Levitin (McGill University)** – *This Is Your Brain on Music*
- Responds to Steven Pinker’s “auditory cheesecake” claim

- Music and drug analogies:
  - **Dopamine** – stimulant-like (speed, cocaine), linked to optimism and energy
  - **Endorphins** – analgesic, similar to heroin, morphine
  - **Serotonin** – relaxation, sleep promotion, relief of anxiety

Pleasure vs Happiness

- **Walter Freeman (1997, Journal of Consciousness)**: neurochemical responses ≠ happiness
  - Happiness is *active not receptive* – superior in activities like dancing and singing
- **Christopher Small's "musicking"**: broad definition blurs this distinction

Neurochemical Effects and Evidence

- **Chanda & Levitin (2013, Trends in Cognitive Psychology)**
  - Music engages neurochemical systems of reward, motivation, stress, immunity, and social bonding
  - Effects may not be unique to music, but also triggered by other stimuli
  - Meta-analysis: music reduces stress, supports health, and manages pain → but mechanisms remain unclear

Music Preference and Individual Differences

- Personal music preference strongly shapes effects
- Self-selected music more reliable than researcher-selected music

Sociological Perspectives

- **Tia DeNora**: music not as "drug," but as a medium to *perform* mental health
- **Saarikallio & Lucy**: adolescents' music use → importance of agency and intentionality
  - Adjusting music use depending on emotional outcomes

Conclusion

- Does music act like a drug? → still inconclusive
- Individual differences and context are crucial
- Neuroimaging has opened opportunities but no predictive model yet

6.2 Musical flourishing and positive psychology

Dr Lucy

Positive Psychology

- **Martin Seligman (1998)** – response to pathology-focused psychology
- Focuses on happiness and flourishing, not illness
- **Authentic Happiness Model**:
  i. **The Good Life** – positive feelings (joy, love, awe, inspiration)
  ii. **The Engaged Life** – immersion and *flow* (Csikszentmihalyi)
  iii. **The Meaningful Life** – service to something larger than the self

Flow and Music

- Flow: deep involvement, time distortion, balance of challenge and skill
- Experienced by musicians in practice and performance, but also by listeners (concerts, clubs, running mixes)
- Canadian research: spontaneous movement to “groovy” music promotes flow

Meaningful Life and Music

- Secular societies: community and social participation as sources of meaning
- Music in choirs, festivals, drumming circles → connection, advocacy, social action

Musical Flourishing

- Proposed by **Gary Ansdell & Tia DeNora**
- Music as a resource for well-being, even in illness
- **Five-year ethnographic study**: café-based jam sessions for mental health recovery
  - Participants built new roles, relationships, occupations
- Participant Cleo: “music triggered a healing process … recovery beyond illness”
- Moves beyond clinical recovery → emphasizes growth, identity, community integration

Conclusion

- Positive psychology offers a framework for music and well-being
- **Musical flourishing**: music cultivates identity, relationships, and community regardless of health status

6.3 Podcast – Megan Hunt (Former CEO, A’dvance Music)

Background

- Megan Hunt, former CEO of A’dvance Music
- Involved since 2008 – previously worked at Royal Children’s Hospital in adolescent unit
- Aimed to support young people with chronic illness or mental health challenges through music

Mission

- “**Creating music, community, and opportunity**”
- **Dual facilitation model**: professional musician + music therapist
  - Technical instruction + therapeutic support
  - Ensured safety, inclusivity, and engagement

Program Structure

1. **Referral & Assessment**
   - Initially for chronically ill youth, later expanded to those facing adversity (mental illness, housing, identity transitions)
   - Required professional community support (psychologist, counselor, music therapist)
2. **14-week Program**
   - Weekly 3-hour sessions, focused on **songwriting**
   - End product: **4 group songs + professional studio album**
   - Balance of product + process → motivation and collaboration
3. **Performance**
   - Post-recording performance for family and community → builds confidence and pride
4. **Ongoing Community**
   - Monthly workshops (“Didos”) with visiting artists
   - Provided continuity, peer connection, and creative growth
5. **Pathways & Peer Mentor Program**
   - Opportunities for education, training, and employment
   - Graduates could become peer mentors, supporting new participants

Impact

- Provided access to music for marginalized youth excluded from mainstream programs
- Fostered self-expression, confidence, leadership, and sense of belonging

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6.2 Musical flourishing and positive psychology

6.3 Podcast - Music and youth mental health

6.4 Case study: Anhedonia - the loss of pleasure

Anhedonia is a transdiagnostic symptom that is often associated with Depression, Bipolar Disorder, Schizophrenia, Substance Use, PTSD, Anxiety Disorders, Eating Disorders, Neurodegenerative Disorders, and Chronic Pain.(Wang, Leri & Rizvi, 2022 – Current Topics in Behavioural Neurosciences, p.4).

According to a review of environmental contributions to anhedonia (Harkness, Lamontagne and Cunningham's (2022, p.81), one way of describing it is as a core feature of psychopathological conditions that have recent exposure to stress and trauma as central to their etiology.

Pre-clinical studies – ie: with rats – show that exposure to stress, particularly when it is chronic, repeated and/or involves themes of social rejection or defeat are consistently associated with reduced hedonic capacity (liking), motivation to pursue reward (wanting) and ability to learn from reward. In both rats and humans, females show greater stress-induced blunting of reward processing than males.

There are a number of contemporary psychometric tools to choose from that have been developed for measuring anhedonia, with a range of foci on various facets including interest, reward anticipation, motivation, effort expenditure, reward valuation, expectations, pleasure, satiation, and learning (Wang, Leri and Rizvi, 2022).

Practically speaking, some of them have questions that focus on anticipation and pleasure from physical rewards (TEPS), some focus on the social domain (MAP-SR), some on social and recreational rewards (SLIPS), some on social deficits (ACIPS), some on positive valence that includes food, physical touch, outdoors, positive feedback, social interactions, hobbies and goals (PVSS), and the one that we chose, which includes items of interest, motivation, effort and pleasure across four reward domains (Hobbies, food/

drink, social and sensory). In this tool, people provide their own examples of rewarding experiences in each domain and then answer standardized questions about how they feel right now.

TEPS - anticipation and pleasure from physical rewards
MAP-SR - social domain
SLIPS - social and recreational rewards
ACIPS - social deficits
PVSS - positive valence that includes food, physical touch, outdoors, positive feedback, social interactions, hobbies and goals
SHAPS – anticipatory and consummatory pleasure
DARS - Hobbies, food/drink, social and sensory
In our case study today, we describe a music therapy intervention that has been helpful for some people with anhedonia - it involves daily, guided, musical engagement that is focused on musical pleasure. Check out the details in Readings Online.

week7

Lecture Notes

Sining and social connection

Why do people sing in choirs?

individual friends
group bonding
the music - neurotransimitter, aesthetic
Performance - self-expression, being seen/heard

The case of the choir (VicHealth Study)

Can everyone join a musical commmunity?

Safety not safety (Higgins)
Floating intentionality (Cross)
Musical Asylums (DeNora)
Collaborative Musicking (Pavilicevic & Ansdell)

What decisions need to be considered in facilitating a choir for community connection?

1. What is the role of the leader - conductor, coordinator, collaborator, therapist?
2. How to choose repertoire? - Preferences? Whose?
3. Complexity of music - how to manage different levels of ability? Is harmony the only way to increase complexity?
4. What are the challenging dynamics that can come up between members?
5. How might you set up a choir - in recruitment? At the beginning of each session?
6. What are the demands on singers?
7. Does ther have to be a performance outcome?
8. Is it all business, or is there time for socialising - before, in breaks, after

Musicality
Musician ship
Musicking

7.1 Singing and social connections

Dr Kat

Introduction

- Singing is a universal, naturally occurring form of music; accessible to almost everyone.
- Graham Welch: vocal sound = defining feature of humanity.
- Exception: **amusia** (musical deafness).
- Singing needs little training/resources → good lens for studying musicking's health benefits (Christopher Small).

Singing in choirs

- **Steven Clift study**: >600 UK choir singers.
  - Quantitative + qualitative measures of well-being (physical, psychological, social, environmental).
  - Many participants had health challenges → lower scores.
  - Qualitative reports: singing lifted mood, blocked worries, reduced anxiety, improved breathing.
- Also strong social benefits: **support + friendship**, reduced loneliness.

Singing and social connections

- Social connectedness = belonging + connection.
- **Australian study (VicHealth)**, 220 Victorian choir members:
  - “Wonderful feeling of singing in a group” = teamwork + collective joy.
  - Singing as community connection and reason for joining.
  - Choir singers more likely to seek **social support in crises** vs average Australian.
- Ambiguity: does singing promote connection, or do connected people choose choirs?
- Participants mainly privileged → less urgent need for support.

Benefits for disadvantaged groups

- **Dr Genevieve Dingle’s study** – “Transformers” choir in QLD.
  - Members with chronic mental illness (89%), physical (28%) and intellectual disabilities (11%).
  - Weekly 3.5h rehearsals with meals → community setting.
  - Reported **acceptance, belonging, community connection** (esp. through performances).
  - Improved relationships beyond choir, more social comfort.
  - Choir repertoire: world music, ballads, pop; often 4-part harmony, sometimes a cappella.

Benefits for marginalised groups

- **Ben Lesky (UniMelb)** – PhD on Melbourne Gay & Lesbian Chorus.
  - Used Tia DeNora’s “music asylum” framework.
  - Choir = safe space where queer identity is the norm.
  - Paradox: exclusivity → safety + inclusivity.
  - Public performance = platform for expressing/rehearsing identities.
  - Outward goal: challenge heteronormativity; inward goal: affirm sexual/gender diverse identities.
  - Choir = gentle activism + identity support.

Conclusion

- Singing together = ancient, natural form of community building.
- Brings personal enjoyment, reinforces social structures, reduces isolation.
- Greatest benefits often for those most disadvantaged/marginalised.
- Hard to quantify, but widely reported as meaningful and pleasurable.
- Why don’t we all do it more?

7.2 Music for building healthy communities

Dr Lucy

Expanding the concept of health

- Beyond individual → beyond interpersonal → includes **social and cultural dimensions**.
- Music's role: fostering healthy communities.

Defining community

- **Brynjulf Stige**: continuum of community
  - **Community of location** (neighborhood, university; shared space/resources).
  - **Community of interest** (common goal/interest, e.g., salsa dancing).
- Many communities combine both (e.g., Music & Health students = location + interest).

Culture and music

- **Culture-Centered Music Therapy (Stige)**:
  - Culture = what happens when people spend time together, interact, make & use artifacts.
  - Culture is **dynamic, negotiated, interpersonal**.
- **Artifacts**: instruments, recordings, music players.
- **John Hawkes (Melbourne)**:
  - Culture as **process** (production & transmission of identity, values, meanings, etc.)
  - Culture as **product** (way of life: customs, religion, arts, dress, rituals).
- Both: arts/music = important representation of culture, but culture = both **process + product**.
- Link to **Christopher Small's musicking**: action, not object.

Health as culturally constructed

- What counts as illness/health depends on culture.
  - E.g. mental illness → medical treatment in one culture vs spiritual issue in another.
  - Obesity: health issue in West vs wealth/health indicator in resource-scarce societies.
- Shows contextual nature of health → now recognized in health policy and music-health research.