Why we listen:
The psychological functions of music
Agenda

• Definition of music

• What is a psychological function? Brains as goal-seeking systems

• Why we listen: how individuals use music for their own purposes

• Social psychology of music: its social functions

• Mass psychology of music
Context

- Contextualists vs. details people (two kinds of people in this world)
- We are setting the context for our investigation of musical structure
- What is a psychological function? Brains as goal-seeking systems
- Why we listen: how we use music in our lives, why do we find it useful?
- The question to be answered (to paraphrase Warren McCulloch):

  What is music such that it has its manifold effects on the human mind, and how does the human mind function, such that music has its manifold effects?
Music: a provisional definition

What makes sound musical? It’s how we use it. (functional definition)

A functional relation between sound and listener, not simply the sound itself

Deliberate organization of sound for pleasure.
Deliberate organization of sound sequences for pleasure.
Deliberate organization of extended auditory experiences for pleasure.

"Organization" can involve composition or performance or selection of sounds or even selective attention to sounds (Cage's silences)
"Pleasure" is similarly very broadly construed, and can mean psychological reward or interest of any sort.
My provisional definition:
Sequences of sonic events designed or selected to produce desired psychological effects not related to explicit communication.

Music consists of sequences of sonic events that produce perceptual contrasts.

Primarily, these contrasts involve:
- **tonality** (pitch: melody & harmony)
- **rhythm** (relative timings of events (rhythm))
- **timbre** (especially in electronic music).

Gasparyan: A cool wind is blowing
Stockhausen: Kontakte
Brian Eno: On Land

Mickey Hart: Udu Chant

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Music vs. speech

Music is somewhat distinct from acoustic communication in which component sounds are symbolic vehicles through which encoded messages are conveyed (e.g. speech, Morse code), because their functions are different.

Speech sounds not part of a coded message system can be musical.

Musical sequences can also be used as symbols in communication (bugle calls).

Speech also has rhythmic aspects that are musical (lexical music, poetry).

Of course, music and speech do come together in vocal music, where speech is made musical without destroying its communicative aspects.
Borderline cases:

Sound selection: Naturally occurring sounds regarded aesthetically, as in “found art”,

Ambient music: sounds that might not be readily recognized as music

Extremely minimalist music (Tibetan singing bowl)

John Cage’s silences (4’ 33”)
Music as stimulus, idea, action, and private experience

Psychology of music examines relations between music and mind.

Music is half of this relation.

Mind has different aspects:
1st person experience (introspection)
3rd person overt behavior (behavior)
Underlying neural physical activity
My definition of “mind” is the
functional organization of informational processes in the brain (a.k.a. mental processes)
Psychological functions

Organisms are goal-seeking systems (homeostasis, survival, reproduction)
Nervous systems evolved to coordinate behavior of motile animals

Functionalities of nervous systems

- Sense the internal state of the organism and the state of the world
- Choose behaviors appropriate to sensed conditions
- Implement actions through effectors
- Embedded goal-states that steer behavior
- Sets of drives and motivations (sometimes mutually competing)
- Maslow’s hierarchy of needs

We will assume for the moment that a psychological function is fulfilled when a goal state is achieved and the corresponding drive is reduced.
steering: percept-action coordinations
Cybernetics, c. 1950-1960: adaptive. goal-seeking devices

Ashby’s homeostat “maintain homeostasis”

Photo removed due to copyright restrictions.

Photo of the homeostat removed due to copyright restrictions.
See http://www.vintagecomputer.net/electronic_brain/homeostat.jpg.
Diagram showing a model of sensor evaluation and action selection in an environment. Key components include:

- **Sensors** and **Effectors**
- **Evaluation and Selection**
- **External Semantics**
- **Percept States**
- **Decision States**
- **Pragmatics**
- **Syntactics**
- **Environment**

Connections illustrate interactions such as altering structure and performance.
Some basic system goals:
Maintain homeostasis
Reproduce
Seek pleasure
Avoid pain
Reduce stress
Self-regulate, self-determine
Relieve boredom
Self-affirm
Explore
Play
Maslow’s Hierarchy of needs

- Where might music fit in?

- (Diagram from Wikipedia)
Psychological functions of music

• Perceptual & cognitive (engaging, interesting, entertaining)
• Psychodynamic (e.g. Self-expression/actualization, identity)
• Emotional (e.g. mood control, emotional contrast, arousal)
• Social (e.g. membership, conformity/individuation/rebellion, ceremony, warfare, mating, social status, atmosphere of public spaces)
Figure by MIT OpenCourseWare. After Tramo, M. Science 291, no. 5501 (2001): 54-56.
Why we listen:
some psychological functions of music in everyday life

As individuals we use music to control our own mental states
functions of music for individual listeners

Social psychology of music: small groups, large groups, societies
functions of music for voluntary groups (e.g. bonding, coordination)
social functions of music (e.g. rituals, national identity, class, economics of music production & consumption, politics)

Mass psychology of music: cultural dynamics
why do particular kinds of music become popular @ different times?

Psychohistory of music: are there larger patterns in history?
Why we listen:

some psychological functions of music in everyday life

As individuals we use music to control our mental state
for pleasure or beauty
for mood control (happy, sad)
for relaxation, stress reduction, pain masking, meditation
for distraction, arousal, to make the time go by
for amusement, cognitive interest, “auditory cheesecake”
for self-affirmation, motivation, identity-assertion
for enhancement of spirituality, religious feeling, serene or ecstatic
and for many other reasons and activities.....
Enhancement of activities in everyday life

Movement: dance, exercise, repetitive work
Memory: music for nostalgia, music for mnemonics
Arousal: music to stay alert (driving music)
Playing music and playing music games (guitar hero)
Immersion: computer game music
Control of sleep: waking or falling asleep
Mood setting: romantic activities
Distraction during daily routines (bathing)
Singing along (show tunes)
Fear, fright, suspense
Catharsis, alienation, channeling anger
Photo of American heavy metal band Slipknot removed due to copyright restrictions.
Political message/identity

Down & out

Union solidarity (folk song)

US Civil rights movement (gospel)

Songs of protest (folk, nuclear war)

Poverty & despair (jazz)

Anti-apartheid
Social-psychological functions: what does music do for social relations?

Group bonding, identity formation, camaraderie, musical subcultures

Group coordination (work songs)

Nonverbal communication

Identity formation & loyalty (nationalism, tribalism, anthems)

Signification in rituals (weddings, funerals, public office)

Shared culture & aesthetic frames of reference

Pair-bonding rituals (dances, social events)

Political movements

Vehicle for cultural/political dissent (beats, punk, skinheads, E. Europe in the Cold War, Iran)

Status differentiation (high vs. lowbrow, music & class)

Economic uses (Muzak, sets tone for public spaces, music industry)
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