ISME 2016: Deconstructing the Constructs: Speech, Language, and Music

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MUSIC UNIVERSALS: Language? Human Experience? Human Knowledge system of inner/outer world

SPEECH:
- **Definition:** “The communication or expression of thoughts in spoken words, that is, in oral, verbal communication” (Bauman-Wängler, 2012, p. 419)
- **Features:** Time, frequency, timbre, intensity
- **Function:** To create sounds orally
- **Relationship to Language:** Speech helps express language, but can be produced without an understanding of the language (e.g., autism)
- **Relationship to Music:** Speech and music share features (e.g., time/rhythm, frequency/pitch, timbre, intensity/dynamics); and both can be produced (re-produced) without understanding

LANGUAGE:
- **Definition:** “A complex and dynamic system of conventional symbols that is used in various modes for thought and communication” (Bauman-Wängler, 2012, p. 414, emphasis added)
- **Features:** Phonemic Awareness, Phonological Awareness, Semantics (meaning), Syntax (grammar), Fluency, Orthographic awareness (speech coding into symbols)
- **Function:** Thought and communication
- **Relationship to Speech:** Language can be used without oral or aural elements (i.e., sign or written language), but oral/aural elements can be used to express or receive language
- **Relationship to Music:** Language is not dependent on aural features, whereas music seldom exists without a basis in and experience of aural elements, which are akin to those found in language (Phonological (contour/phrase) phonemic (individual sounds or articulation); semantics (patterns); syntactic (form-repetition/contrast); fluency (delivery) orthographic (notational understanding, i.e. scale) elements

MUSIC
- **Definition:** Sound organized over time. Sounds arranged “in time so as to produce a continuous, unified, and evocative composition” (Farlex, Inc., 2016). Our brains organize the aural attributes (Levitin, 2006, p. 14), by which sounds (vibrations) are interpreted as music.
- **Features:** Global Elements (timbre, time, pitch, dynamics); Form (repetition, contrast); Sections; Contours; Phrases; Patterns (motifs/words); Discrete utterances (Individual sounds, rhythm values/pitches); Articulation
- **Function:** To express, experience, and/or understand thoughts or meaning from organized sounds
- **Relationship to Speech:** Music and speech share features (e.g., time/rhythm, frequency/pitch, timbre, intensity/dynamics); and both can be produced (re-produced) without understanding.
- **Relationship to Language:** Music seldom exists without a basis in and experience of aural elements, which are akin to those found in language (Phonological (contour/phrase) phonemic (individual sounds or articulation); semantics (patterns); syntactic (form-repetition/contrast); fluency (delivery) orthographic (notational understanding, i.e., scale) elements, whereas language is not dependent on aural features
NEUROLOGICAL PERSPECTIVES:

- Development-
- Neural networks
- Collateral learning from Music Involvement

CONSIDER the CONSTRUCTS: What is the focus? It depends on the goals--

Speech (production/performance); Language (meaningful patterns); Music (organized elements of sound)

Focus on music: Global (timbre, time, pitch, dynamics); Patterns and structures; Human knowledge structure.

Conclusions:

- Similarities among the constructs can create blurred lines that can serve for arguments that posit the three constructs are one and the same (e.g., music is language).
- However, differences in the function, organization, expression, and reception of each help define three unique human constructs.
- Growth in each domain can be realized concurrently through well-planned activities that capitalize on similarities and differences among the constructs.

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**WORKS CONSULTED:**

