

# Before Order: The Crucial Role of the Phatic Function

**Gabriele Giacosa**

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# Structure

- **Tradition & Order**
- **A Definition**
- **New Direction**
- **Cognitive Analysis – A Suggestion**

# Was ist Musik?

## The Emptiness of “Order”

# A Traditional Divide

- **Pythagoras (ratios) vs. Aristoxenus (effects on ear)**
- ***Quadrivium, Querelles***
- **Music - *art* ≠ music - sound object**

## 2 Poles in Mus. Aesthetics

- “The formalist-absolutist position”, according to which “music means itself”
- “The expressionist-absolutist position, [convinced that] music is capable of referring to the nonmusical”

Jean-Jacques Nattiez (1990). *Music and Discourse: Toward a Semiology of Music*. Princeton: Princeton University Press.

# Order

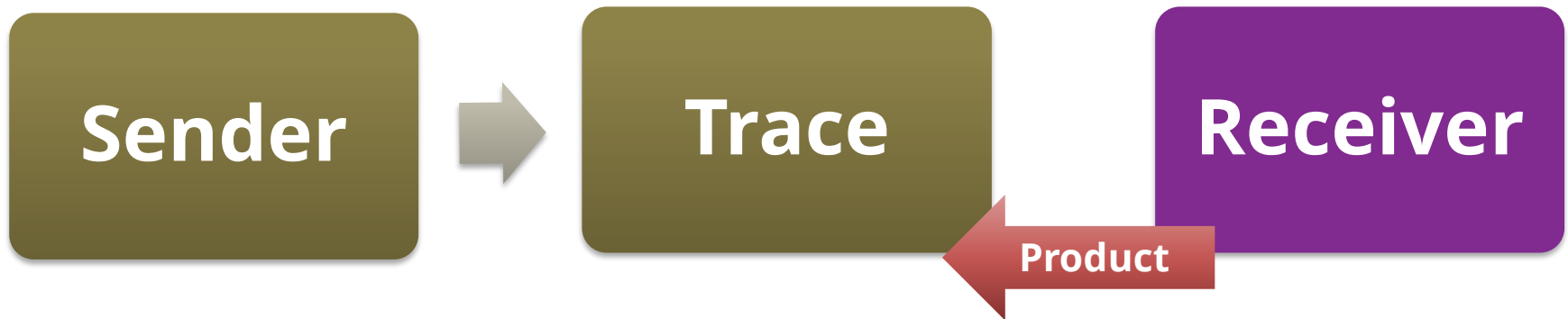
Organization, structure, grammar...

“Order” is ever-present, due to:

- Tradition with *a priori* pre-conceptions (author, “work”)
- Tendency to evaluate *a posteriori* (m. theory, acoustics)
- **No integration**



# Semiotics

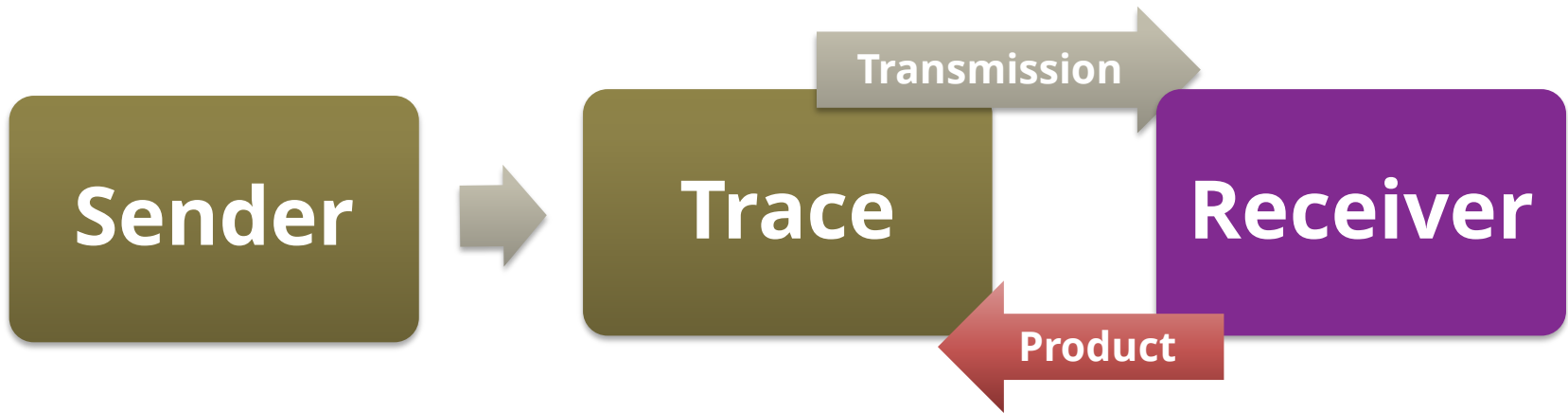


**Jean Molino's semiotic tripartition** (in Nattiez):  
No connection between poles

# Poiesis vs. Esthesis

In both “structuralist” and “subjectivist” views, **order** as conceived (score, immanent in sound) or perceived (musical features, beauty, art) **fails to integrate** the dimensions





The trace is both a **transmission** and a **product** (as Molino suggests): it tells us something about the sender

# “Order” in:

## Sender

- **Intentions**

(psychology, art)

Example: John Cage's  
*4'33"*

- **Music ≠ Sound art**

## Receiver

- **Features**

- **Time/order is not constitutive:** is there a no-order condition?

# Music and Musicality

- **Music: cultural** phenomenon, related to a **tradition**
- **Universality, “language-like”**
- **Musical Features**
- **Musicality: biological capacities** required for developing **“music”**
- **“No single selective force”**

# Musicality, Pre-disposition

“There is an initial **predisposition** of the human brain for music processing that is **triggered** by the extensive exposition to musical stimuli in everyday life [my emphasis].

Thanks to both factors (predisposition and intensive exposure), nonmusicians become ‘experienced listeners’ that do not strongly differ from musically trained listeners in numerous experimental tasks”.

Emmanuel Bigand and Bénédicte Poulin-Charronat (2006). Are We “Experienced Listeners?” A Review of the Musical Capacities that Do Not Depend on Formal Musical Training. *Cognition* 100.

# How do we identify “music”, when we do?

- Order is not necessarily consistent in communication
- Music is a communicative/semiotic system using sound, with different levels of meaning

“(Intelligible) sound produced with the **main** intention to produce sound”

# Synchronization

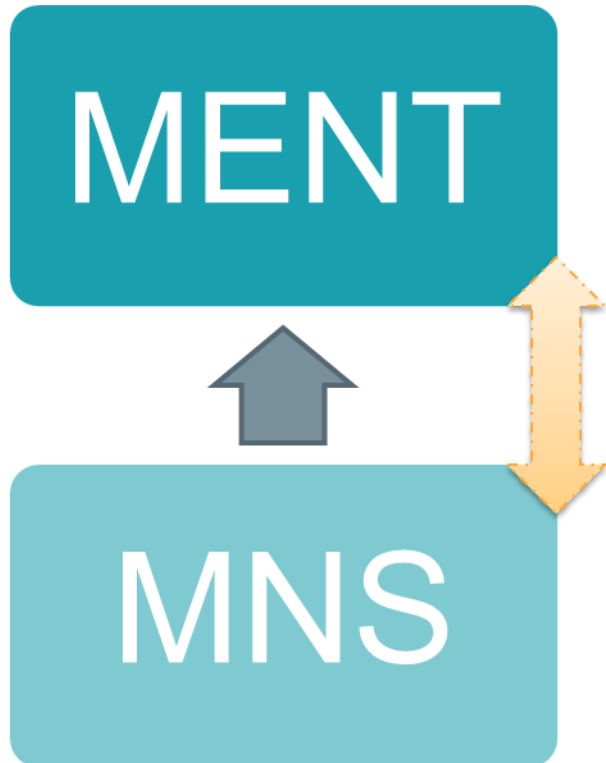
“The feeling of synchronization reinforces group identity and arises from patterns of social behavior. Collective expression needs a minimum of order and coordination”

Juan Francisco Sans. Review of *Experience and Meaning in Music Performance*, ed. Martin Clayton, Byron Lueck, and Laura Leante, *Journal of Folklore Research*

- **Intersubjective synchronization**
- **“Presenting” awareness through sounds**

# New Direction

# Intention Perception in Neural Research



- Can depend on context: **mentalizing** system (MENT), higher-order cognitive function; achieved also in immediacy in the **Mirror Neurons System (MNS)**

Kai Vogele (2017). Two Social Brains: Neural Mechanisms of Intersubjectivity.

*Philosophical Transactions of the Royal Society B*

a.r.t.e.s. 

Graduate School for  
the Humanities Cologne

Graduiertenschule der Philosophischen Fakultät



# Still Lacking

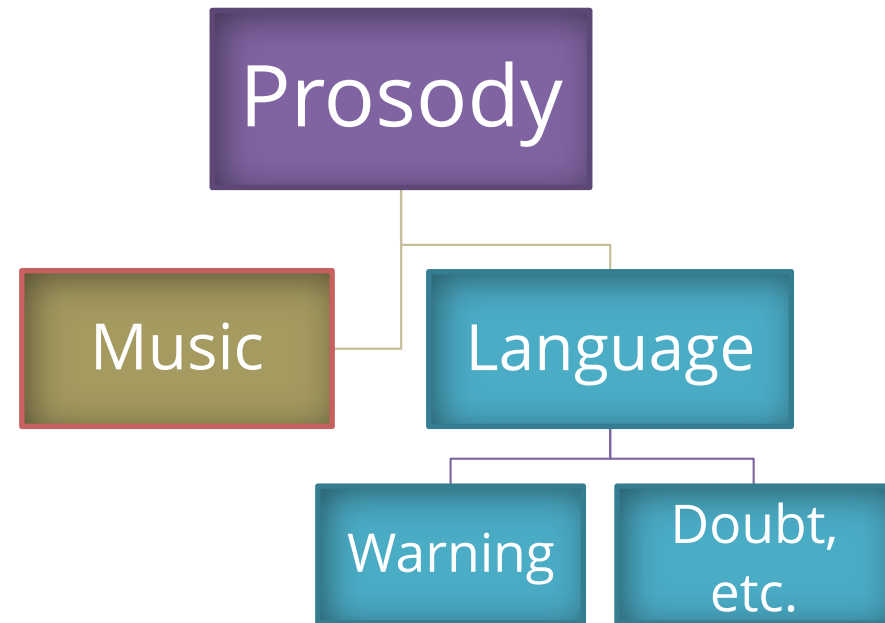
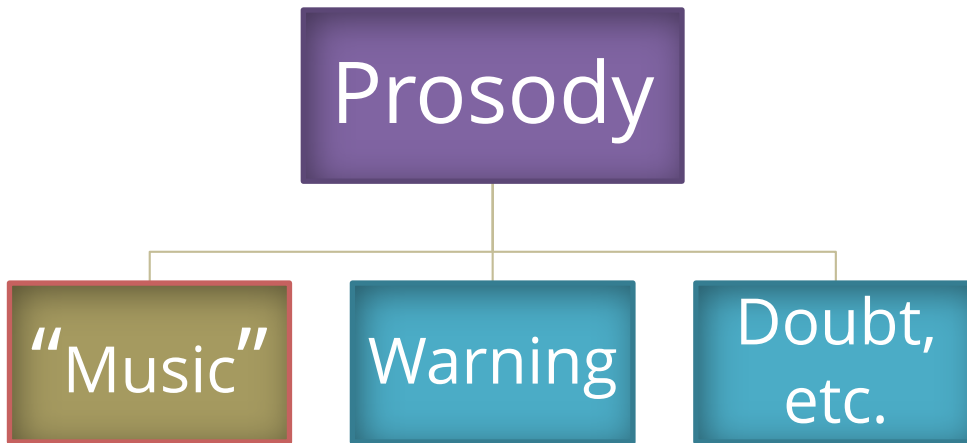
- Explanation of **“intention”** as **meaningful**: strictly **top-down category**
- **Phenomenological** level of **mind/experience**
- **Communicative system** as related to **intentions**
- Several **simultaneous functions/“intentions”**  
– **Immediacy**
- Prosody: **sound alone conveys** intentions;  
but **categories?**

# Pragmatics: Prosodic Hierarchies?

## Language ≠ Music - same utterances (Deutsch)

### Mentalizing Hierarchy

### MNS Hierarchy



# Representationalism

- **Functionalism** – relating mental phenomena directly to brain
- **Structure/grammar** (Chomsky)
- **Theory-Theory (ToM)**
- **Simulation Theory (MNS)**
- **Fails** to identify **intentions: “discrete”** and **“non-contextual”** (require knowledge of concepts), **modular cognition**

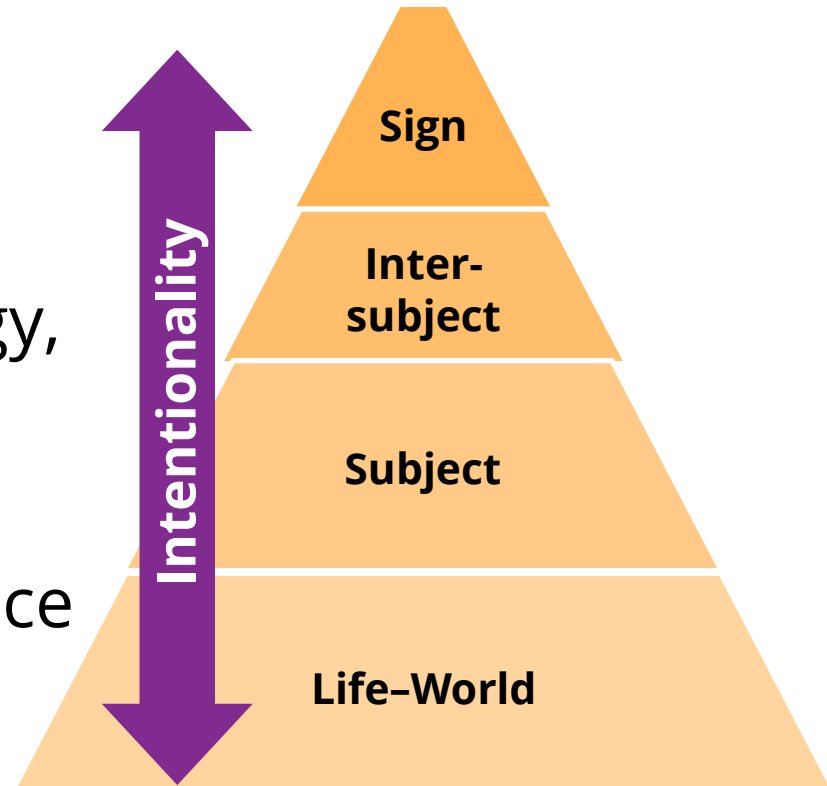
Sebo Uithol et al. (2014). Why We May not Find Intentions in the Brain.  
*Neuropsychologia* 56

# Enactivism (4E)

- **Auto-poiesis** reflects my main criticism of **order**:  
**bottom-up behavioral feedback** vs. top-down pre-structuring
- **Acting = Perceiving**
- **Developmental Intersubjectivity**  
(phenomenology)
- **Contextual/Situated**
- Basic entities interact with the world  
→ Develop capacities

# Cognitive Semiotics

- **Transdisciplinarity:** implement levels
- 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> **Person Perspective:** phenomenology, interaction, analysis
- **Semiotic Hierarchy:** from openness-to-world, experience as **intrinsically meaningful**



Jordan Zlatev (2018). Meaning Making from Life to Language: The Semiotic Hierarchy and Phenomenology. *Cognitive Semiotics* 11

# Direct Perception - Gallagher

- **Interaction Theory vs. TT & ST:**  
**inferring/simulating** other's minds, **non-perceivable** ≠ **Direct Perception**
- From **levels of intention** (psych.) to levels of **intentionality** (phenom.) – **sedimented directed intersubjectivity** ≠ **“state of mind”** in the head
- **No *tabula rasa*:** direct perception **in infants** → **basic imitation** – despite non-inferring
- Social cognition **non-reducible** to **sub-personal**
- **Perceptually attuned** to others

# Shared Intentionality

- **Non-mentalizing** infants (1 year) understand basic **intentions**
- **Joint Attention: participatory sense-making**
- **Meaning** can emerge **from little** information
- Intersubjectivity **remains** with development
- **I. Cross: phatic** dimension, social **uncertainty**  
→ highlight **communicative** intention
- **Tomasello: capacity** for **culture**

# Re-interpreting Hypothesis

- **Conventionality is implicit – shared** biological capacities and minimal **experience** → **self-exploratory behavior**
- **Meaning emerges from behavior**
- Music and enactivism: obtain shared code **without explicit** formalization
- MNS in IT: mirroring for social **perception** (of actions) – **non-articulated, immediate**
- **Intersubjectivity in immediacy** (direct perception)



# Teleomusicality

- Music as **biocultural developmental** phenomenon
- **Secondary intersubjectivity** (CTA) vs. **proto-musicality** (OTA) (→ Intentionality)
- Producing sound to **play with sound**

Andrea Schiavio et al. (2017). When the Sound Becomes the Goal. *Frontiers in Psychology* 8

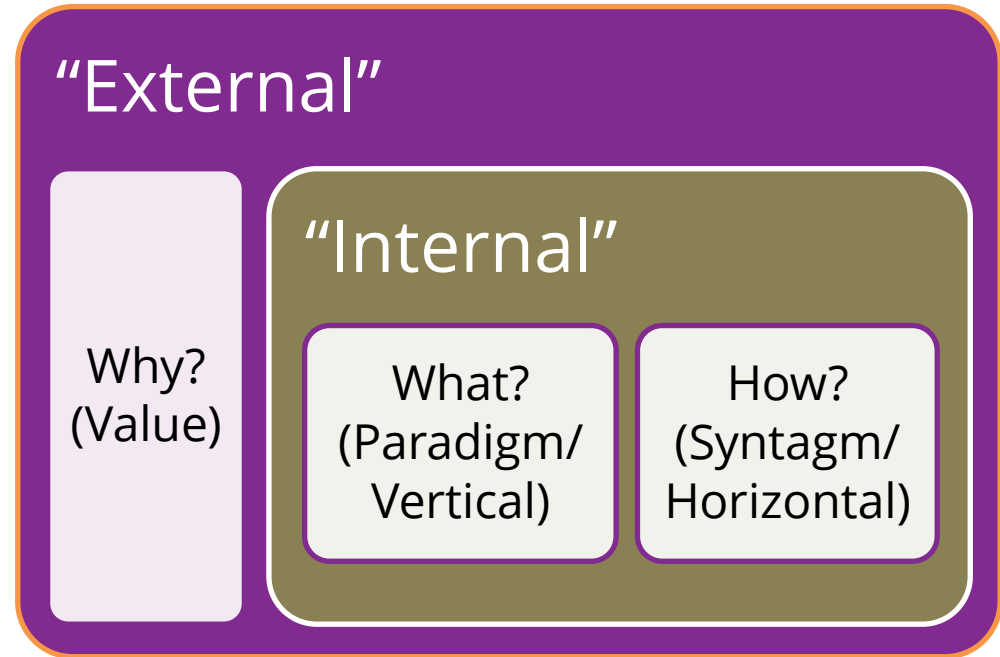
## But:

- **Self-exploratory** → Intersubjective
- **Bodily** → Prosody
- **Early** stage → “Normal” condition

# Cognitive Analysis

# Principles

- Work **constitution**
- **Aboutness** of thought
- **Comprehension**

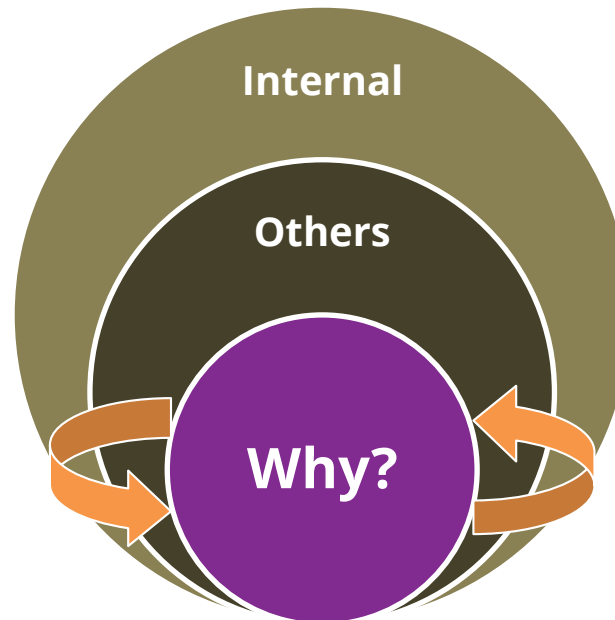
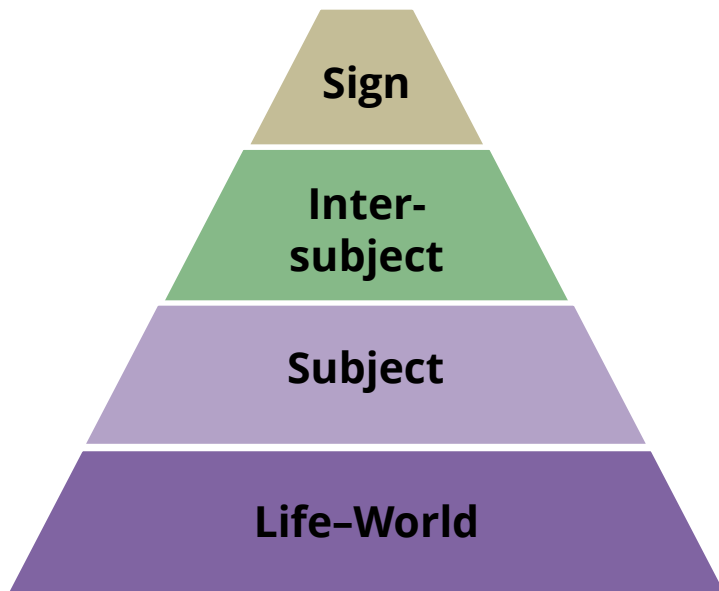


- Goal: being able to re-construct the piece/experience through analysis

Jean-Marc Chouvel (2004). Structural Analysis and Cognitive Activity, Towards Real-Time Methods in Musical Analysis. *Journal of New Music Research* 33

# Relevance of (Cog)Semiotics

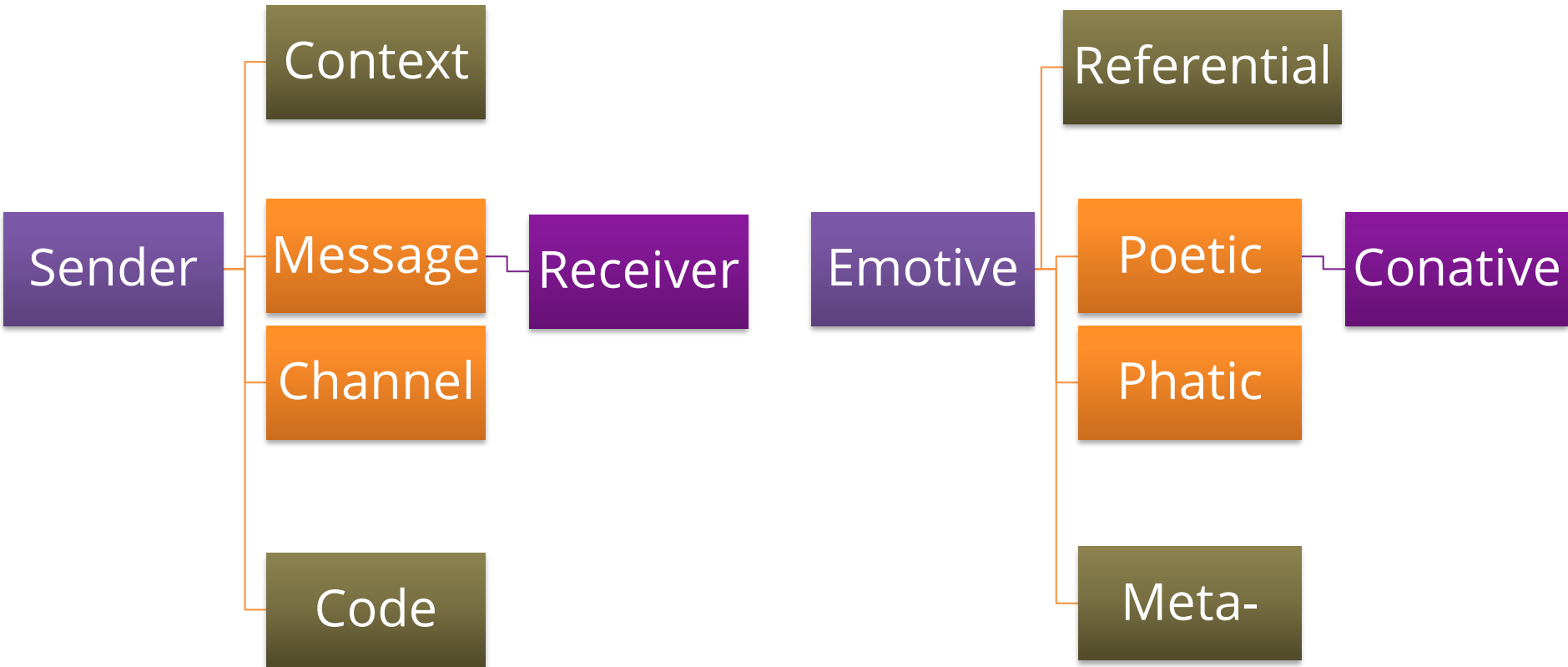
- Absorb a phenomenological perspective (**aboutness**, *intentionalität*)
- **Re-connect** the “poles” of communication
- Higher completeness in terms of levels of analysis



# Phatic (and Poetic) Function



# Jakobson's 6 Functions



# Functions in Music

- **Lack** of explicit **reference** (word-level)  
→ phatic and poetic functions are more **relevant** (constant sound) and **intertwined**
- **Cross** (2015) considers phatic function in relation to **evolution** → re-consider as **cognitive interaction**: impossible to **“verify”** attention; “heard” music assumes a listener and interacts with it → poetic focus results in phatic

- Analyzing “**why?**” → **De-composing meaning**
- I suggest taking a **first step** in de-composing **musical meaning** within the structure in terms of **inter-subjective interaction**
- A **first step** could be “**highlighting**” sounds → **phatic/poetic dominance**
- Semiotic hierarchy (evo-devo) → “code” and *articulation* (sedimented **normative** reference) are **secondary** layers
- Another perspective: considering the **change of “dominance”** between phases



# Example in Interaction

- **Vuust & Roepstorff** (2008) attempt such an analysis, reporting functions in music
- Focus on **free jazz** (M. Davis), strongly **intersubjective** dimension
- Results in similarities with language; **patterns** as cues → **changing** dominant function (phatic)
- Listener vs. Co-musician

Peter Vuust and Andreas Roepstorff (2008). Listen up! Polyrhythms in Brain and Music. *Cognitive Semiotics* 3

# An Example: *Farben*

The figure displays a complex musical score for 'Farben' across 26 measures. The score is organized into several horizontal layers:

- Large Pitch Patterns:** The top staff shows a sequence of notes with circled numbers 1 through 26. A circled '1' is labeled 'sequence of 1' and a circled '26' is labeled 'sequence'.
- Organism:** A multi-staff section (staves 2-5) showing the actual musical notation with various annotations like 'M', 'C-1 (except bass)', and 'C-2'.
- Transpositions of C:** A staff showing four transpositions labeled C-0, C-1, C-2, and C-4.
- chord changes:** A staff showing rhythmic patterns corresponding to the chord changes.
- Instrument changes (attacks only):** A staff with two voices (1-4 and 5) showing instrument changes. Annotations include 'in 2x' and 'in 3x'.
- string punctuations:** A staff showing rhythmic patterns for string punctuations.
- Sections:** The bottom staff is divided into Section I and Section II (trans.).

Fig. 2

Every pitch of the organism (except octave doublings) is given in this figure. A note once written (whether shown as tied or not), continues to be sounded until a new note appears in the respective voice. "Chord change" refers to a point in the organism where one or more voices change pitch, thus producing a new chord. "Instrument change" refers to a point where one instrument is replaced by another, or a group of instruments is replaced by another group. (The relation of chord change to instrument change is discussed under COLOR.)



mm. 1 7 9 27 28 29 30 31 32

Organism

Two-note motive

Detailed description: This figure shows a musical score with two staves. The top staff is labeled 'Organism' and contains measures 1, 7, 9, 27, 28, 29, 30, 31, and 32. The bottom staff is labeled 'Two-note motive' and contains measures 1 through 32. A dashed box highlights measures 27-30 in both staves. Annotations 'see m. 31' and 'see m. 9' are placed above the bottom staff. The music is in a key with one flat and a common time signature.

Fig. 4



a)

b)

x  
8va

w

y  
(plus 8va)

z  
8va

Detailed description: This figure shows two parts of a musical score, labeled 'a)' and 'b)'. Part 'a)' is on a single staff and contains notes with annotations 'x 8va', 'w', and 'y (plus 8va)'. Part 'b)' is on a single staff and contains notes with an annotation 'z 8va'. The music is in a key with one flat and a common time signature.

Fig. 5

“These sporadic interjections are structurally subordinate to the organism, but dramatically they contribute much to the composition. Without them, the changing chord, fascinating as it is in both instrumentation and pitch, would be too much of a good thing. The piece would become a tour de force.

[...]

Clear-cut divisions, then, are indeed foreign to this work. Especially in its pitch and its large-scale rhythms it is as inert and unassertive as possible, as though it aspires not to move at all. In this sense, the old myth ultimately contained a kernel of truth. The basic idea of *Farben* is, indeed, its *Farben*.”

Charles Burkhart (1973). Schoenberg's *Farben*: An Analysis of Op. 16, No. 3. *Perspectives of New Music* 12

# Functions in *Farben*

- Dispersing the sound, shift **focus** on **timbre**:  
no highlighting of **time**, “**no-melody**”  
→ **Poetic dominance**
- “Interjections” to direct and maintain  
**listener’s attention**  
→ **Phatic dominance**

# Question(s)

- (For analysis and informatics): **how to implement “functions” and “dominance”** (at a primary level)?
- ...?

# Merci beaucoup!