

## Song, meaning-making in a dialogue

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**Disciplinary background A.** Pragmatics. Music might have preceded language as means of communication (Fitch, 2009; Brown, 2000) and its meaning therefore seems to unfold in a dialog. Just like prosody conveys speaker's intentions (Hellbernd & Sammler, 2016), the musical accompaniment gives away author's intentions. By decoding its relevant features (Wilson & Sperber, 2008) the perceiver interprets the intended message.

**Disciplinary background B.** Cognitive Linguistics. Similar conceptual networks for language and music have been suggested (Schön et al., 2010), and the capacity of the latter to convey concepts has been empirically proven (Painter & Koelsch, 2011). Since the two systems perform remarkably similar interpretive feats (Patel, 2008), linguistics provides useful tools to discover the nature of musical meaning.

### Abstract

This paper endeavours to shed light on the mechanisms underlying allocation of meaning and the exact role of the perceiver participating in the sense-making interaction which is song listening.

Language and music are human universals involving perceptually discrete elements organised in hierarchically structured sequences (Jentschke et al., 2005). Given its similarity with language, in past decades music has attracted scholars from cognitive linguistics and neurolinguistics (Patel, 2008; Peretz & Zatorre, 2005). These disciplines provide tools to specify the nature of meaningful mental representations and have offered evidence for overlapping brain areas for the processing of both musical and language meaning (Steinbeis & Koelsch, 2008), as well as shared conceptual networks for language and music (Schön et al., 2010). This study in cognition and perception of songs highlights the communicative nature of music (Slevc, 2012), and approaches song as a twofold dialog between the music and the lyrics, as well as between the author and the listener. The use of ecological material, such as songs, seems necessary to uncover the true nature of brain's processing of meaning in both domains (Fitch, 2015), yet only few studies have been focusing on the cognitive processes underlying sense-making of song. This paper endeavours to show that song perception is analogous to an act of communication in which the perceiver actively participates in meaning creation. At the same time, by setting texts to music, the composer tries to convey richer meaning and imposes one interpretative frameworks by virtue of genre-related cognitive schemas (Shevy, 2008). Furthermore, music bears resemblance with the affective prosodic cues in speech (Juslin & Laukka, 2003), and since during conversation speech prosody provides important clues about the speaker's communicative intentions (Tomasello et al., 2022), listeners might decode the acoustic clues present in the music as containing such intentions. Activation of affect-related cognitive schema imposed by the composer is capable of filling in details, which are not explicitly stated (Kenesei, 2010). Since perception is not something that happens in us, but rather something we do (Tuuri & Eerola, 2012), meaning is actively revealed by the perceiver (Kenesei, 2010), who then becomes a co-author (Boltz, 2001). The world of the mental store of the listener guarantees some leeway for different interpretations. In communication, pragmatic information is quickly integrated (Berkum et al., 2008) and so does the music merge with the text-based message. Musical accompaniment provides additional pragmatic information to the one contained in the lyrics, and has to be interpreted just like the context of a dialog. Thus, song

interpretation succeeds thanks to the joint efforts of the author and the listener who both participate in the meaning-making. By linking several theories, such as the Relevance Theory (Wilson & Sperber, 2008) or the Foregrounding Hypothesis (Schotanus, 2020) among others, this paper attempts to highlight the active role of psychological experience of a perceiver in the interpretation. This view of a song as a kind of intentional communication is further supported by the automatic engagement of Theory-of-Mind and social cognition brain networks during music listening (Koelsch, 2011). This paper argues that arts in general and the study of music and its interaction with words in particular can provide an encompassing account of mental representations and the mechanisms by which human allocate meaning to their surroundings and advance our understanding of the nature of meaning in general (Fitch & Gingras, 2011). This paper therefore attempts to add to the knowledge of semantic processing by bridging evidence from cognitive sciences and neurolinguistics on one hand, and pragmatics and musicology on the other hand.

**Interdisciplinary implications.** Since music just like language represents a uniquely human and universal feature that challenges almost all of the components of human cognition, it constitutes one of the most prominent tools of exploring human cognitive processes. The use of cognitive-linguistic tools in the study of how listeners interpret songs can contribute to our understanding of the nature of mental representations. By applying pragmatic theories to the perception of songs, their communicative nature is revealed. Since a nonrandom correspondence between the cognitive processes experienced by the perceiver and those intended by the creator has been suggested (Fitch et al., 2009), the study of song interpretation enhances our appreciation of the act of artistic creation and thus advances the recently developing field of bio-aesthetics.

#### References

- Boltz, M. (2001). Musical soundtrack as a schematic influence on the cognitive processing of filmed events. *Music perception: an interdisciplinary journal*, 18(4), 427–454.
- Brown, S. (2000). Theories of music origin. The “musilanguage” model of music evolution. In Eds Brown, Merker & Wallin, *The Origins of Music* (pp. 271–300). MIT Press.
- Fitch, W. T. (2015). Four principles of bio-musicology. *Philosophical transactions of the royal society B: Biological sciences*, 370(1664), 0–3. doi: 10.1098/rstb.2014.0091.
- Fitch, W. T., & Gingras, B. (2011). Multiple varieties of musical meaning. Comment on “Towards a neural basis of processing musical semantics” by Stefan Koelsch. *Physics of life reviews*, 8(2), 108–109. doi: 10.1016/j.plrev.2011.05.004.
- Fitch, W. T., von Graevenitz, A., & Nicolas, E. (2009). Bio-aesthetics and the aesthetic trajectory: A dynamic cognitive and cultural perspective. In M. Skov & O. Vartanian (Eds.), *Neuroaesthetics* (pp. 59–101). Baywood Publishing Co.
- Hellbernd, N., & Sammler, D. (2016). Prosody conveys speaker’s intentions: Acoustic cues for speech act perception. *Journal of memory and language*, 88, 70–86. doi: 10.1016/j.jml.2016.01.001.
- Jentschke, S., Koelsch, S., & Friederici, A. D. (2005). Investigating the relationship of music and language in children: influences of musical training and language impairment. *Annals of the New York academy of sciences*, 1060, 231–242. doi: 10.1196/annals.1360.016.
- Juslin, P. N., & Laukka, P. (2003). Communication of emotions in vocal expression and music performance: different channels, same code? *Psychological bulletin*, 129(5), 770–814. doi: 10.1037/0033-2909.129.5.770

- Kenesei, A. (2010). *Poetry translation through reception and cognition: The proof of translation is in the reading*. Cambridge Scholars Publishing.
- Koelsch, S. (2006). Significance of Broca's area and ventral premotor cortex for music-syntactic processing. *Cortex*, 42(4), 518–520. doi: 10.1016/S0010-9452(08)70390-3.
- Koelsch, S. (2011). Towards a neural basis of processing musical semantics. *Physics of life reviews*, 8(2), 89–105. doi: 10.1016/j.plrev.2011.04.004.
- Painter, J. G., & Koelsch, S. (2011). Can out-of-context musical sounds convey meaning? An ERP study on the processing of meaning in music. *Psychophysiology*, 48(5), 645–655. doi: 10.1111/j.1469-8986.2010.01134.x.
- Patel, A. D. (2008). *Music, language, and the brain*. Oxford University Press.
- Peretz, I., & Zatorre, R. J. (2005). Brain organization for music processing. *Annual review of psychology*, 56, 89–114. doi: 10.1146/annurev.psych.56.091103.070225.
- Schön, D., Ystad, S., Kronland-Martinet, R., & Besson, M. (2010). The evocative power of sounds: Conceptual priming between words and nonverbal sounds. *Journal of cognitive neuroscience*, 22(5), 1026–1035. doi: 10.1162/jocn.2009.21302.
- Schotanus, Y. (2020). *Singing as a figure of speech, music as punctuation*. Universiteit Utrecht.
- Shevy, M. (2008). Music genre as cognitive schema: Extramusical associations with country and hip-hop music. *Psychology of music*, 36(4), 477–498. doi: 10.1177/0305735608089384.
- Slevc, L. R. (2012). Language and music: Sound, structure, and meaning. *Cognitive science*, 3(4), 483–492. doi: 10.1002/wcs.1186.
- Steinbeis, N., & Koelsch, S. (2008). Shared neural resources between music and language indicate semantic processing of musical tension-resolution patterns. *Cerebral cortex*, 18(5), 1169–1178. doi: 10.1093/cercor/bhm149.
- Tomasello, R., Grisoni, L., Boux, I., Sammler, D., & Pulvermüller, F. (2022). Instantaneous neural processing of communicative functions conveyed by speech prosody. *Cerebral cortex*, in press.
- Tuuri, K., & Eerola, T. (2012). Formulating a revised taxonomy for modes of listening. *Journal of new music research*, 41(2), 137–152. doi: 10.1080/09298215.2011.614951.
- Van Berkum, J. J. A., Van Den Brink, D., Tesink, C. M. J. Y., Kos, M., & Hagoort, P. (2008). The neural integration of speaker and message. *Journal of cognitive neuroscience*, 20(4), 580–591.