

## **Timbre and Affect in Electronic Dance Music Discourse**

Maria Perevedentseva

Department of Music, Goldsmiths, University of London, United Kingdom

[mpere001@gold.ac.uk](mailto:mpere001@gold.ac.uk)

### **Introduction**

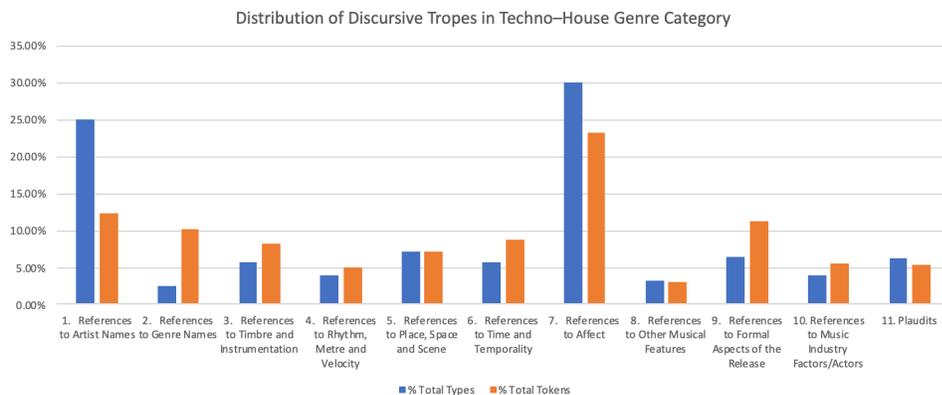
Different notions of affect are often portrayed as the singular motivating force behind and distinguishing feature of electronic dance music and culture (e.g. Gilbert & Pearson, 1999; Jasen, 2017). Especially prominent is the Deleuze-Guattari-Massumi strand of affect theory, which locates affect in the midst of things and uses it to probe ‘how the “outside” realms of the pre-/para-linguistic intersect with “lower” proximal senses’ (Seigworth & Gregg, 2010, p. 8). Ruth Leys (2011, p. 449) summarises the prized attributes of post-Deleuzian affect theorists as including ‘the nonsemantic, the nonlinear, [...] the vital, the singular, [...] the indeterminate, [...] and the disruption of fixed or “conventional” meanings’, all of which privilege nonconscious bodily becomings over conscious deliberation. Such emphases on ineffability, in-betweenness and vitality also mark some recent musicological work on timbre, which conceives of timbre as ‘vital relationality’ which supersedes binarisms between the acoustic and the perceptual, the material and the ideal, and between timbre and tone (Van Elferen, 2018, p. 18). At the same time, studies of user-generated EDM discourse (e.g. Jóri, 2020) have noted that EDM fans show a keen awareness and understanding of timbre in their music, despite the language used to express it being marked—like the timbres of EDM—by ‘nonspecificity’ (Fales, 2018, p. 25) and affectivity. In this paper, I conduct a discourse analysis of what appear to be nonspecific affective verbal descriptors used in EDM record reviews on the online record retailer Boomkat.com, in order to investigate whether the vernacular affective terms used by EDM scene participants really are nonspecific, or whether and to what extent they correlate with timbral features in the tracks they are reviewing. Boomkat’s record reviews are well-known for their inventive use of language which plays upon the tacit scene knowledge of their customers, and as such represent an interesting case study into the natural language of the EDM discourse community.

### **Method**

My analysis relies on a mix of quantitative, qualitative and computational methods, bringing approaches from corpus linguistics into the fold of music analysis. This paper forms part of a larger study which analysed language data from multiple EDM subgenre categories on the Boomkat website using the Voyant text analysis software, manually classified frequently occurring terms into trope categories, and compared the relative weightings of the tropes between subgenres in order to explore the ‘concealed inflections of taste’ (Graham, 2019, p. 533) latent in EDM culture. In this paper, the focus is on the Techno–House genre category only: my corpus is made up of data pertaining to 1027 records released in the year leading up to January 2019 which were scraped from the Boomkat website using the Beautiful Soup package in Python. Figure 1 below shows the distribution of types (individual word-forms) and tokens (instances of word-forms) among the trope categories for all words occurring >4 times in the genre corpus. As the chart shows, unambiguous references to timbre and instrumentation (Trope 3), rhythm, metre and velocity (Trope 4), and other musical features (Trope 8) are considerably less prevalent than references to affect (Trope 7), the trope category which contains emotive and whimsical terms describing loosely specified sonic properties or the general “feel” of the releases. In line with the stated aims of this paper to identify timbral correlates to nonspecific affective descriptors, the rest of the analysis concerns the 797 types derived from the Affect trope.

From this large and diverse lexical pool, it is possible to identify latent sub-tropes, such as words referring to force, action or motion (“pressure”, “swerve”, “bang”); emotional and evaluative terms (“cranky”, “natty”, “infectious”); references to mass, texture and luminance (“weightless”, “rough”, “murky”); cross-modal correspondences (“tangy”, “woozy”); stylistic references (“cinematic”, “jazzy”); and references to altered or transformed consciousness (“trippy”, “sublime”, “hypnotic”). Many of these categories are

consistent with the types of language commonly used to describe timbre. The prevalence of terms which emphasise materiality, sensation and action in my corpus echoes Wallmark's (2019) identification of these domains as the key dimensions underpinning the cognitive linguistics of timbre, and supports Wallmark and Kendall's (2018) observation that timbral language is often affectively loaded.



**Figure 1.** Distribution of types and tokens among 11 trope categories. % of 2650 types and 37262 tokens.

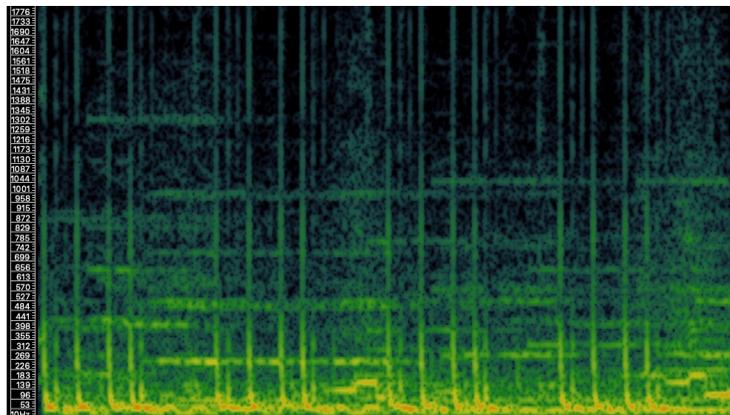
In order to explore how particular words relate to the timbral features of the records being reviewed, two terms—“torque” and “keening”—are selected for further analysis on the basis of their idiosyncrasy, frequency of occurrence, and their affective, mimetic and embodied connotations, which bring them in line with the types of language often used to describe timbre outlined above. The standard definition of “torque” is that it is a force that tends to cause rotation. In terms of embodied image schemata, it implies a downwards force and a sideways, rotary motion, as well as having a haptic dimension through its association with grinding and an affective charge of pressure and tension. “Keening” is a type of solo female singing originating from Ireland and traditionally practiced as part of the mourning ritual, which is characterised by a haunting and often wavering wailing sound either devoid of lyrics altogether, or with barely articulated consonants so that the visceral properties of the wail are foregrounded over semantic meaning.

Following the seven categories of timbre descriptors arrived at in Wallmark's (2019) study of orchestration treatises, “keening” can be understood as straddling mimetic, acoustic and affective categories, while “torque” exhibits traits of affect, action, and cross-modal correspondence. These associations and their relevance to the Techno-House corpus are further evidenced by visualisations created with a word embedding projector tool based on the Fasttext.cc language model which enables the dimensionality reduction and visualisation of semantically related terms. In this corpus, “torque” is represented as closely related to terms like “traction”, “downstroke” and “angles”, while “keening” is related to descriptors like “ghostly”, “lilting” and “wistful”. Using the context tool in Voyant, the terms “torque” and “keening” are matched with the record reviews in which they appear. Of its 26 total instantiations in the Techno-House corpus, “torque” is used in reference to 22 named tracks, while “keening” is used a total of 18 times in the corpus, and 13 times in reference to specific tracks. All named tracks containing either of the two terms are then analysed by close listening and the visual inspection of spectrograms in order to investigate whether the tracks share particular timbral features which could, via conceptual metaphor, be matched to the terms used to describe them.

## Results

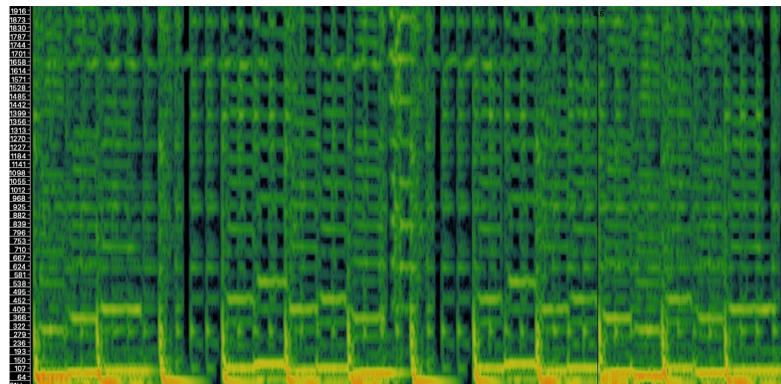
My findings show that, of the 13 tracks whose descriptions included the term “keening”, 9 contain synthesiser lines placed well above the other elements of the mix in the middle or high registers, whose spectromorphologies are characterised by extremely smooth amplitude envelopes with almost inaudible attack onsets, slight filter oscillation throughout the duration of the gesture, and subtle detunings, reverb and noise elements. Of the 22 tracks whose descriptions include “torque”, 11 contained a specific gesture characterised by a mid-range synthesiser line doubled by strong sub-bass several octaves below, an

internally dynamic temporal envelope achieved by a combination of amplitude, pitch and filter modulation, and a complex, resonant harmonic spectrum with plenty of distortion, especially near the attack onset. Figures 2 and 3 below show spectrograms of examples of “keening” and “torque” gestures created using Sonic Visualiser. Audio examples will be provided.



**Figure 2.** Spectrogram of “keening” gesture from Pär Grindvik ‘Trails’ (3’11–3’17)

In the Pär Grindvik example, the smooth and fairly clean-sounding top lines “float” faintly above an otherwise bottom-heavy mix, and are doubled by a mid-range line surrounded by a slight halo of distortion. When these two timbres are perceptually grouped together, the effect seems to mimic the sound of a voice breaking as it attempts to reach a higher pitch. The association with keening is further reinforced by the *portato* melodic contour and lack of clear attack onsets which mirrors the lack of consonants in sung keening. The overall prevalence of surface noise and crackle plays on an established “hauntological” trope in EDM discourse which further bolsters the links between keening and the supernatural.



**Figure 3.** Spectrogram of “torque” gesture from Bambooman ‘Ricochet’ (Matthew Herbert’s Milky Dub)’ (1’12–1’18)

In the Bambooman example, the resonant and harmonically complex mid-range line is doubled several octaves below by an LFO-modulated bass line and a high-amplitude sub-bass. As Smalley (2007) notes, the presence of sub-bass extends the depth of the sound, and the “weight” of the bass part in comparison with the mid-range line, with which it is perceptually fused when listening, creates a distinct sense of downward pull. Furthermore, each note of the main synth line is marked by a filter envelope modulation which creates a sensation of timbral dilation, schematically mapping onto the rotary dimension of torque. Lastly, the noise distortion present in the sound could, as per the findings of Wallmark et al. (2018), contribute to a cross-modal perception of physical exertion required to produce the sound, which again corresponds to the feeling of force associated with torque as an embodied action.

## Discussion

In line with several recent studies surveyed by Wallmark and Kendall (2018), my results show that conceptual metaphors and notions of embodiment play a prominent role in the affective language used to

describe sound in EDM on Boomkat.com, and that particular terms are consistently applied to specific timbral features with which they share certain invariant characteristics. As noted by Fales (2018), pitch and other musical parameters also clearly influence timbre cognition here, and embodied image schemata are complemented by the cultural conventions of EDM, all of which serve to flesh out and make meaningful the effects of timbre in this music. Given the extent of the correlation between affective verbal descriptors and particular timbral features, it seems clear that EDM scene participants have developed a stable and, contrary to previous accounts, relatively specific vernacular lexicon for communicating about timbre. Words like “keening” and “torque”, which may appear vague to listeners outside of the EDM discourse community, appear to form a key part of the ‘working vocabulary’ (ibid., p.29) for committed EDM fans, specifying concrete spectromorphological attributes that are recognisable and communicable. It is possible, then, that the nonspecificity and emphasis on affective becomings over conscious meaning-making ascribed to EDM cultures is founded on ideological rather than musical grounds. My findings tentatively confirm Wallmark’s (2019, p. 600) hypothesis that embodied and ecological concerns undergird a broad ‘swath of the discursive landscape for musical timbre in many linguistic and cultural contexts’. However, more work is needed to scale up and explore other terms, and establishing inter-rater agreement between multiple researchers would help to counteract any subjective biases that are all but inevitable when working alone.

### **Acknowledgments**

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