

Forget the “Grain of the Voice”

Studying the voice in songs

By Catherine Rudent

From crooning to auto-tune, the voice is at the heart of popular songs. However, it has proved difficult to study: how can something as personal be analysed? Catherine Rudent provides an overview of current approaches of the voice in popular music studies.

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Like walking, or writing by hand, the use of the voice is a generic human practice nevertheless personal to everyone. Like these two other practices, it results from technical, acquired gestures common to humankind—for the voice, the techniques used are vocal and phonatory—and, like walking or writing, the voice is also adapted and incorporated on an individual level, integrated in and related to subjective life. Bearing the imprint of each individual’s personality, the voice is differentiated, as walking or writing are, to the point of identifying a person.

Both shared technique and individual expression, the voice can be apprehended as an individual style, and this right down to spontaneous speech. Its use is modulated according to cultural contexts. The singing voice, for its part, is socialised and gendered.¹ These few introductory remarks suffice to evoke the plurality of possible angles of reflection when it comes to the voice: anthropological, phonetic,

1 See Deniot & Dutheil, 2000; Middleton, 2006: 92-93; Provenzano, 2019: 74

physiological, psychological, aesthetic, ethnological, sociological. Equally, the voice in songs is subject to the same epistemic array.

The voice is generally presented as a difficult subject for reflection, and has, surprisingly, only fairly recently become an object of study.² The voice is nevertheless at the heart of the song, by definition a short and everyday vocal form that can be transmitted orally. “Tune expressed through words”, “easy to hum”, “short” and “organic” because it is “sung” and therefore “related to air and to life” (Hirschi, 2008, p. 29), songs are, even more broadly, “the triangulation of a text, a piece of music and a rendition that places ‘Only You’ by The Platters, ‘Ambulance Blues’ by Neil Young and ‘Aghartha’ by SunnO))) on the same plane” (Gayraud, 2018, p. 384). Thus very little music is called song without the inclusion of the voice and conversely only the voice is essential for us to be able to speak of song, the “dominant genre in *popular music*”.³ Recent years have, however, seen a closing of the gap in research on the voice.⁴

From *grain de la voix* to Grain of the Voice

Perhaps the difficulty in speaking about voice explains the international success of the expression “grain de la voix”, used by Barthes in 1972 in a short article, at once difficult and dense, published in the ‘Psychanalyse musique’ issue of *Musique en jeu* and translated into English in 1977. By becoming the “grain of the voice”, the expression *grain de la voix* was given an extraordinary lease of life: it is mentioned in countless publications, in popular music studies and more generally when talking about the singing voice. However, the expression is misused most of the time. First of

2 This observation was made at the end of the 20th century by the Swiss philologist Paul Zumthor (1983: 11), and more recently by Marlene Schäfers (2017) and Nina Sun Eidsheim (2019: 5). It was confirmed with respect to the field of the voice in songs and popular music studies by Philip Tagg (2013: 344) just a few years ago.

3 *Ibid.*: k8691. Some quotes refer to a digital edition in kindle format. In this case, the text location number is preceded by a k.

4 Jonathan Greenberg (2014) has observed a “new interest in singing within academic music studies” since 2000. The International conference *La voix dans les chansons. Approches musicologiques* organised by Catherine Rudent (IREMus) and Céline Chabot-Canet (Passages XX - XXI) March 3-4, 2016, at Université Lyon 2 and Université Paris-Sorbonne—conference from which the papers in Volume (2020/1) originated—was therefore part of an observable trend.

all, it has the disadvantage of reinforcing the thesis of the “indescribable” nature of the voice—because when we say “grain of the voice”, often without further qualification, we aren’t actually saying much although it gives the misleading impression that something has been said since the formula is striking and sticks in the mind of the reader. Furthermore the facile impact of a prestigious reference to a French intellectual associated with French Theory is combined with this extreme reflective economy. However, most of the time, all this is based on a misinterpretation of Barthes' ideas in this text. They are at the very least elided, often distorted, and sometimes purely and simply contradicted. This slippage in meaning occurs by means of decontextualization, displacement and shifts in repertoire.

When ‘The Grain of the Voice’ was published in English in 1977, in a collection of translations of articles by Roland Barthes, the text was taken out of the resolutely psychoanalytic context in which it was inscribed on its initial publication. In the same issue of *Musique en jeu*, there were articles by various authors, with evocative titles such as ‘Musique et inconscient’ (Music and the Unconscious), ‘J’ouïr’ (A play on words for the French for ‘hear’ and ‘climax’), ‘Mes oreilles (ces yeux crevés)’ (My ears (these gouged eyes)), ‘Jeux de maux’ (Again a play on words for the French for ‘wordplay’ and ‘aches and pains’), ‘Musique et drogue’ (Music and Drugs). There is an initial shift in the meaning of the text linked to this change in contextual environment. Next, we generally forget that in his article Barthes is talking about two singers of melodies and lieder (Schubert, Schumann, Fauré etc.): Charles Panzera and Dietrich Fischer-Di[e]skau. He writes “not with regard to the whole of music but simply to a part of music (lied or mélodie): the very precise space (genre) of the encounter between a language and a voice” (Barthes, 1977, p. 181) and “to 'classical' music” (*ibid.*, p.189) in the broad sense. This is a very important point, even if, at the end of the article, the author admits the possibility of considering “grain” in music for other repertoires: instrumental music or atonal music.

Finally, the term “grain”, linked to other concepts developed elsewhere by Barthes or others (Kristeva mainly), has a complex meaning that overly hasty users flatten out completely. For Barthes, the grain is that which is outside communication and expression: it has to do with “signifiante (which is meaning in its potential voluptuousness)” (*ibid.*, p. 184) and not with signification; it allows “the temptation of ethos” associated with a piece of music to be “liquidated” (*ibid.*, p. 181) It is in this that the presence of “grain” in a voice can be appreciated, and not in any acoustic roughness. Moreover,

“the ‘grain’ of the voice is not - or is not merely - its timbre; the signifiante it opens cannot better be defined, indeed, than by the very friction between the music and something else, which something else is the particular language (and nowise the message).” (*ibid.*, p. 185)

While the author defines grain as the “materiality of the body” “bear[ing] along directly the symbolic”, we should not be mistaken with regard to what he means by “body” here. The grain comes from “geno-song”, it germinates “from within the language and in its very materiality” (*ibid.*, p. 182): the “matter” Barthes is talking about is therefore that of the language—, and the enjoyment of the grain is “the voluptuousness of its sound-signifiers, of its letters”. Barthes links grain to “body”, to “matter”, but in this very particular sense.

Noise in the Voice

Many researchers borrow the term “grain” from Barthes because they think that in doing so they are evoking the “noise” of the voice in the acoustic sense. However, what is noise in this sense? It is the presence of disorganised acoustic energy, as opposed to a “harmonic” sound, which is very organised, as it combines several frequencies which are integer multiples of the fundamental. From this acoustic point of view, a language, whether spoken or sung, combines noises—some so-called unvoiced consonants—with harmonic sounds—vowels and so-called voiced consonants. What Barthes designates as grain in Panzera however is precisely the fact that he favours vowels and blurs consonants. Panzera, he says, recommended that the consonants not be overly articulated, that they “be *patinated*”, “be made simply the springboard for the admirable vowels” (1977, p. 184): the “grain” in Barthes is not the contribution of noise in the acoustic sense at all, but rather the opposite.

In fact, noise in the voice actually manifests itself above and beyond consonants and these other noises are also very important in musical style and in the construction of the *persona* of popular music artists. All forms of hoarseness, growl, huskiness, breath and vocal fry, are part of commonplace noises in vocal practice, whether it be spoken or sung. Their presence and quantity depend on the speakers and singers, but also vary in the same speaker according to circumstances or expressive intentions. Here again, the two singers taken as examples by Barthes do not have “noisy” voices

in any sense, because a noisy vocal timbre is not part of classical technique, at least not in the 20th century.

Therefore, we're a long way away from the prevailing idea that "grain" is an elegant and intelligent term, adorned with an aura specific to French Theory, to designate voices with a "grainy", "rough", "raucous" timbre, all of which are metaphorical qualifications that refer to noise in the acoustic sense.

Leaving acoustic considerations on noise to one side, let's now consider the physiological plane. In terms of the parts of the body that constitute the phonatory system, vowels correspond to the periodic vibration of the muscles and mucous membranes known as vocal cords (or vocal folds), located at the level of the cartilaginous structure of the larynx. The regularity (periodicity) of this vibration places it among periodic vibrational physical phenomena—with its so-called "harmonic" organisation adding diverse frequencies, all multiples of the fundamental. What, then, does the production of noise in the voice correspond to organically? In one way or another, voluntarily or not, momentarily or constantly, the formation of the consonants or of other kinds of vocal noise presented above disturbs the flow of air and interrupts the regularity (the harmonic nature) of vibration at the moment of production of this periodic phenomenon. But one can also produce inharmonic sound with a brief blocking of the vocal folds (glottal stop), with a mobilisation of various parts of the phonatory system, cartilages, uvula, mucous membranes, ventricular bands etc. In some people, the physical structure of their vocal cords means that they do not vibrate very periodically and this irregularity is audible in the form of noise, which is more or less pronounced and which combines with the periodic vibration. In any case, there is then less harmony in the voice and what results is a noisy, hoarse, husky, saturated voice, a growl.

For the voice in song, the approach taken to noise is on yet another plane, which is neither acoustic nor physiological: that of paralinguistics,⁵ a study that takes that which is not verbal in oral communication into account—the melodies, timbres,

5 Pioneered in the United States in the middle of the 20th century by linguist George Trager (Averill, 2003, p. 237).

accents or flow that characterise all speech. In this frame of reference,⁶ vocal noise is part of the palette of signifying sounds of oral communication: here it's not about describing singing processes in detail nor of producing a stylistic analysis of them, but rather of interpreting them in a semantic way, generally in relation to the lyrics and the *persona* of the vocalist.

Whatever the approach, the theme of the noisy voice is very present as soon as one starts looking at rock voices. In 'Rock singing', Middleton (2000) lists its usual characterisations as *growl*, *scream*, *rasp*; Hicks (1999, p. 1-11) analyses the *roars* and the *buzz* of voices in sixties rock at length; Bangs goes into all sorts of metaphorical meanings for Iggy Pop's "growls", "caws", "whoops", "shredded gargling threats" (Bangs, 2013). Stephen Banfield's (2000, k1748-1763) take when he speaks of the "rock scream" and "rock rasping" could therefore be said to be a conventional one. In the same way he also associates them with "pain", "youth self-expression and empowerment" and the manifestation of "political urgency". Although these representations combining pain, power, youth, political engagement and the rock yell are commonplace, they do not correspond either to physiological reality—the notes cited by Banfield are not painful to emit—or to social reality - youth, in 2000, is far from being an omnipresent factor in the practice or reception of rock.

In any case, vocal noise is a pillar of many of the aesthetics discussed in popular music studies. And beyond the perimeter of the voice alone, much "popular" music is analysed as an expression of protest, symbolised by noisy vocal but also instrumental sounds. Noise may well be the main sonic expression of transgression, whether this be in popular music from the European past (Charles-Dominique, 2006), the various musical modernities of the 20th century (Castanet, 2007), 1950s rock (Gilles, 2012), noise music (Benhaïm, 2018) or death metal (Wallmark, 2018).

The Body and the Voice

6 See Lacasse (2010b) for example.

As we have seen, in Barthes' text the "body" is not corporeal matter manifested through noise. Nor is it the physical body of the speaker or the singer. However, in recent works and publications on the singing voice, it is indeed the physical body of the singer that is mentioned with insistence. Three areas of reflection are recurrent in this work: the voice as incorporated or embodied, because it is indissolubly linked to a physical body of which it is an element of presence and of which it manifests the characteristics; the concept of vocal body, developed by Nina Sun Eidsheim, which restates in depth the notion of the link between voice and body; finally the many studies on the way in which recording techniques remove the link between voice and body, producing a disembodied voice.

The voice is a bodily manifestation and this opens up different perspectives depending on the research. It plays a part in the staging of the body (Lebrun, 2012). It is at the crossroads of sensoriality, as voice, for Nina Sun Eidsheim (2011) is as much felt as heard. Elsewhere, the voice contributes to racialising the body: a voice perceived as Black refers to a body classified as Black (Meizel, 2011;⁷ Eidsheim, 2008 and 2019); the processing of the voice in studios serves gender relationship differentials (Provenzano, 2019).

Thus the voice manifests what the body is, its race, its gender. The simplicity of this equation is contested by Nina Sun Eidsheim (2008, p. 2). According to her, the body is not "present" in the voice, but it is represented by it: "vocal timbre is not an elementary sound of an essential body, but rather [...] both timbre and body are shaped by [...] training that are cultural artifacts of attitudes towards gender, class, race and sexuality." This enables her to construct (ibid., pp. 35-36) the concept of "vocal body" as follows: unlike the body "with which we are born" which doesn't have any "timbral limitations", the "vocal body" meets expectations related to social categories. The voice is therefore not the natural or direct expression of the person. "Vocal timbre" is not "the unmediated sound of an unaltered body".

⁷ "We hear the voice in relation to the ways in which the body of the singer has been racialized, and thereby objectified" (Meizel, 2011: 212).

The third area of research on the body and the voice is that which, for about three decades, has dealt with the question of a break in the link between voice and body. This break is generally considered to be the result of sound recording and broadcasting techniques: recording makes it possible to broadcast and hear vocal sound independently of the bodily presence of the person making it, a fact discussed in the sixth ('The Cyrano machine') and eighth ('Phonography') chapters of *Recording Angel* by Evan Eisenberg, an important milestone in the field when published in 1987. In addition, from the first half of the twentieth century onwards, radio has meant we can listen to "café songs" without there being any relationship to a stage performance (Jean-Claude Klein in Guibert, 2006, p. 82). Reflection on this strange separation between voice and body is particularly developed in Gayraud (2018, k3945-3953 and k6212-6213):

"In recorded songs, the voice is dissociated from the body: the human voice coming out of a phonograph no longer has a body. [...] To record one's voice means to disappear as a body that sings and instead produce a second body: the recorded voice's body as projected by the listener who listens to it, imagining various incarnations."

Lately, there have been some developments regarding "inhuman" voices obtained by a widespread use of Auto-Tune, and their social or aesthetic significance. Is this another racialisation of the Black voice (Provenzano, 2018)? Or a fascination with the depersonalisation of pop stars (Reynolds, 2018)?

The physiological aspects of the voice, the study of detectable bodily techniques mobilised by this or that vocal style, this or that sung genre, are left to one side in these contemporary debates on the relationships between body and voice. Questions regarding vocal techniques do nevertheless arise when developing an understanding of what is going on both in today's songs and those of the past and they have been taken up by researchers such as Lacasse (as of his thesis in 2000), Lefrançois (2011) and Bourne and Garnier (2012, 2016).

What separates these two lines of research, these two approaches to the voice? They can be thought of as falling into subjectifying and objectifying approaches, or, we can take up Molino and Nattiez's opposition between aesthetic and poietic approaches, as Tagg does regarding the voice in song (2013).

Interpreting the Voice in Song

The first set of reflections on the voice in musical analysis, which we will term the explanatory or interpretive, gives meaning to the second, consisting of analytical observations, as is shown in Brackett's (2000) analysis of songs.

However, it seems that discourse on the voice often leaves observation to one side. Perhaps this reveals the circumvention of a specific obstacle: the voice, which comes out of the musician's body as it were, does not offer observation and scientific research the same material and technical purchase as musical instruments do. Talking about the voice often comes down to falling back on an impression of the fact and relying on the sharing of common (cultural) or personal metaphors:

“[U]nlike the poïetic terms designating musical structure defined by parameters of pitch, tonality, metre and episodicity, descriptions of voice, like those of timbre, are mainly *aesthetic*”.¹⁰

The generalisation of these modes of description of the voice has sparked research interest in the 2000s, in particular by Michèle Castellengo and her team¹¹ at the LAM (Laboratoire d'Acoustique Musicale). Castellengo (2019, p. 72) shows how the colours of voices are subject to category qualifications, organised around “typical” voices. However the perception and designation of vocal types engage “cultural similarities acquired by learning” (*ibid.*, p. 74) above and beyond the acoustic traits. In other words, a voice is not recognised as being “of the same type” as another solely on the basis of acoustic traits. Such appreciation varies according to the cultural background of the listener. Furthermore, interpretative approaches to voices in song often use two related but not synonymous notions: those of identity and *persona*.

Identity

The function of voice in song is not only reserved for verbal communication or musical melody. We are “experts at using our voices” recalls Tagg (2013, p. 345) “to present our individual or group identity”. For Zumthor too, the voice

¹⁰ Tagg, 2013, p. 344.

¹¹ See for example Garnier *et al.*, 2004, 2007.

“provides information about a person, through the body that produces it: people’s voices are more revelatory than their eyes or the looks on their faces [...]: the vocalised sound goes from inside to inside, links two existences without further mediation.”¹³

These vocal cues to the identity of singers, have been extensively used to elucidate the fascination exerted by artists on their public, by linking it to the identity crystallized by their singing voice.¹⁴

Nevertheless, identities are dynamic and not static: “the recreation or reconstruction of [identity] is more feasible than its predication or affirmation” (Lévi-Strauss, 1983, p. 331). In addition, the identity revealed by the voice actually results from a co-construction by the singer and the listener. It is dependent on “cultural filters” through which the voice is both produced and listened to (Eidsheim, 2008, p. 183, 212; 2019, p. 3). Zumthor's assertion must therefore be deconstructed, because it reflects the Western tendency to relate voice to interiority (Eidsheim, 2019, p. 5).

Persona

The *persona* is “an aspect of the personality as shown to or perceived by others” (*The Concise Oxford Dictionary* in Tagg, 2013, p. 343). It may or may not result from intentional construction strategies: it is the *character*. Simpler and more observable than identity, it also provides a direct entry to the voice: in Latin *persona* means the mask and the theatrical character that wears it. *Personare* (“sound through”) refers to the acoustic and vocal phenomenon of the actor wearing a mask and making themselves heard through this mask.

The notion of *persona* in music proves useful when analysing the *performance* of song.¹⁶ This line of reflection throws up three instances of *persona* in a singer’s performance: that which comes from the internal character of the song, that which comes from the general character of the artist (their *persona*) as they present themselves publicly and finally that which comes from the artist themselves as distinct to their

¹³ Zumthor, 1983, p. 14

¹⁴ See Hicks (1999, 1-11) on Mick Jagger’s “conflictual” voice; Deniot and Dutheil (2000) or Coudevylle-Vue (2016) on popular female identity, Middleton on Charley Patton’s elusive and inascribable voice (Middleton, 2006: 60-62), Cab Calloway’s self-ironic voice (*ibid.*: 83-85), Patti Smith’s extreme and transgressive voice (*ibid.*: 98-108) and Nina Simone’s controlled, concentrated and assertive voice (*ibid.*: 116-123)

¹⁶ See Frith (1996, pp. 196-200, pp. 210-212), then Auslander (2008) and Tagg (2013).

public image. How is *persona* perceived in the voice? For Tagg (2013: 179-182, 355-382), a listener generally categorises a voice by means of the character it evokes for them: famous people with specific voices, specific vocal traits associated with gender, age, social, psychological or emotional characteristics. A good example of demographic *persona* is of accents applied to the pronunciation of sung language, such as the “American” accent of English rock singers (Trudgill, 1983), analysed more recently in British heavy metal by Caillol and Ferragne (2019).

Auto-tuned voices

In a recent publication, Reynolds (2018) reflects on the *personas* conveyed by voices through the different uses of Auto-Tune: for example, the vocal prosthesis or cyborg voices of a science fiction humanity endowed with “bionic superpowers” for “MCs like Future, Chief Keef and Quavo”, a finally admissible vocal vulnerability and tenderness for “rappers’ hard hearts” (Lil Wayne), or the “ecstatic pain” of offering oneself as “porno-pop” prey and the representation of “pop stardom as [...] ego-disintegration” for Britney Spears in *Blackout*. The validity of such interpretations depends on the author’s codal competence or expertise, acquired through their cultural practices. But these same representations of *personas* of auto-tuned voices, were on the contrary deconstructed by Provenzano (2019), who shows that male auto-tuned voices are presented as authentic, creative, artistic and emotional, while in women producers use Auto-Tune like discreet make-up, perfecting the supposed naturalness of their voices and preventing any near misses—always something to be afraid of (Provenzano, 2019: 65), thanks to the “bitches be crazy” gender stereotype.

As interesting as these different approaches may be, they only make sense within a certain framework, with regard to a corpus or a repertoire in which the author can deploy their expertise and codal competence. This partial validity must be kept in mind: the repertoires mentioned do not in themselves embody either “popular music” or “the song”.

From classical singing to belting

We must remember, then, that we cannot correlate *a* voice with *a* meaning. Neither vocal identity nor the perceptual frameworks of vocal phenomena have the necessary stability to allow this. However, we can see the immense achievements of

recent years in this area, compared to the standardised and universalist conception of singing which was still in place until almost the end of the twentieth century. Within the established frameworks of research, the terms “singing” or “singing voice” only referred to one practice, that of so-called “classical singing”.

The broadening of research on the singing voice to take in the vocal styles of pop went through an interest in belting, a very different vocal technique to what is known as “vocal placement” in classical singing. Used in many musicals, soul, rock and generalised in pop since the 1980s, belting produces a vocal sound which may seem forced, but which is also singularly powerful and expressive. It has been a stylistic marker and an alternative “technical norm” in pop songs globally since the middle of the twentieth century (Rudent, 2013, p. 60). This vocal technique was shaped by racial and cultural issues of the United States: belting started in coon song, song caricaturing “negro song” at the beginning of the twentieth century. According to Banfield (2000, k1410-1475), “the belt originated in the coon song as sung by the coon shouter”.

In France, in the wake of Castellengo, belting was in particular studied by Bourne and Garnier (2010, 2012, 2016)—and Henrich. This redeemed its devalued status, evoked in a few expeditious and pejorative phrases, as opposed to the classical voice, supposedly more natural to the larynx, more hygienic (Sundberg, 2000, k4975), more “pure, secure, trained, ‘integrated’” (Osborne cited by Banfield, 2000, k1406-1407).

Since around 2000, this interest from researchers in a vocal technique that differs, or is even historically opposed to Western classical singing, has opened up two perspectives that were hitherto almost non-existent: the contextualisation of the classical voice and consideration of the technical nature of the voice in songs. Once the plurality of vocal techniques and styles was recognised, it was also possible to put interpretations of them into perspective.

Musicological Approaches

Other approaches, which fall within observational analysis, are however essential. Such approaches draw on findings necessary for interpretation, an incomplete area of work on the voice in songs: in interpretative approaches, the descriptive strata are generally dealt with in broad strokes and do not therefore result in the level of understanding they might otherwise achieve. These observations are largely a matter of musicology, which makes it possible to “describe and analyse the sonic materials of music” (Brackett, 2000, pp. ix-x). Musicology considers musical sound in terms of its difference and its resemblance to other sounds. It identifies, characterises and qualifies this sound verbally using a recognised vocabulary, both the limitations and contributions of which are appreciated.

Included, here, are musicological approaches to the voice that are based on the description of the characteristics of vocal sound: organic, acoustic, technical, syntactic, prosodic, stylistic. As a result, they shed new light on and bring to the fore unexamined processes that shape our vocal behaviours and tastes in terms of voices: the use of falsetto for example (Moore, 2001, p. 48), additions to the melodic line of ‘Try a Little Tenderness’ (Bowman, 2008) and shouted sounds in James Brown (Brackett, 2000). Expertise on a genre or an artist consequently moves on to discourse that is open to the comparison of vocal styles that are very different from each other.

Such an approach means that vocal qualities cannot simply be seen as elusive phenomena. The voice does indeed have a material dimension—the larynx and the vocal tract are the organs that produce it—and it can be approached from its physiological side (work on laryngeal mechanisms and yodelling by Lefrançois, Castellengo, Henrich etc.). It also has the concrete dimension common to all sound, which is why it can be subject to an acoustic approach. It can be reproduced on phonographic recordings and contained in various formats which, in addition to opening it up to all kinds of phonographic processing mean it can be subject to the after-the-fact analysis of a multitude of “texts.”

Interpretative approaches, anchored in the social experience of music, naturally tend to limit themselves to a relatively homogeneous musical corpus, built on the basis of a musical current: it is essential for such interpretations to approach the corpus from the inside, in the form of representations shared by its practitioners—audiences and experts included.²⁰ In poietic considerations, observations, based on a targeted and explicit methodology, can be made transversally with regard to different corpora—

²⁰ This is the originality and relevance of works such as those of Meizel (2011) and Spanu (2017), which are resolutely transversal in terms of musical corpora.

belting, yodelling and vocal characteristics in general can be covered in very diverse cultural and musical contexts.

However, the two families of approaches complement each other: interpretation can benefit from poïetic and technical observations, which take the time and allow themselves the means to identify and describe the transversal vocal phenomena that are observable in countless vocal “*personas*”. These elements are coherent with the stimulation, and not the contradiction, of an approach anchored in a repertoire and engaged in the comprehension of the said repertoire. Far from constituting epistemological closure, a normative position or positivist retrenchment, they should be understood as additional tools for analysing song. They create links between what is observed from the physiological and acoustic point of view, what constitutes itself as a style, and the spirit of a piece of music, a genre or an artist. They respond to Eidsheim's call (2019, p. 4) to “cross disciplinary boundaries and build on work from music theory, the scientific and material aspects of timbre and voice studies”. For her, this is the method needed to “debunk myths about race as an essential category”. For us it is a way of opening up reflection on the voice in songs to all the possibilities available in the contemporary scientific community.

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