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ARTICLE

Chabanon, the Listening Self and the Prosopopoeia of Aesthetic Experience

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Abstract
Michel-Paul Guy de Chabanon (1730–1792), an aesthetician and partisan of Jean-Philippe Rameau's harmonic theories, is most often remembered for his rejection of musical mimesis and for his separation of music and language. In doing so, he advanced one of the first – if not the first – aesthetic theories of musical autonomy. Yet despite this achievement, little has been written about how or why he came to this conclusion. This article provides a long-overdue reconstruction of Chabanon's claims for autonomy while simultaneously resituating him in eighteenth-century musical discourse. Through a sylleptic reading of his writings and the intertexts that underpin them, I show that Chabanon was an insightful critic of the French Enlightenment's aesthetic project. I accomplish this by reconstructing his argument about music's ability to provoke aesthetic experiences within listeners. As I contend, Chabanon's own encounter with this question articulates an aesthetic theory based upon music's materiality, grounded at once through the science of acoustics, novel theories of sensory experience and the musical theories that they engendered. Using his documented experience of Rameau's *Pigmalion* (1748) as a point of departure, I argue that Chabanon's transformation of musical aesthetics into an autonomous discipline helps to turn the early-modern subject into the modern listening self.

Keywords: Michel-Paul Guy de Chabanon; Jean-Philippe Rameau; musical aesthetics; musical autonomy; auditory culture; *sensibilité*

I begin with a story.

> Il y a quelques années, j'entendois avec plusieurs personnes Musiciens, un Concert nocturne; la salle du Concert étoit ouverte de tous côtés, nous étions dehors, & il faisoit un orage épouvantable. On exécuta l'ouverture de Pigmalion, & au *fortissime* de la reprise il survint un éclair terrible, accompagné d'éclats de tonnerre; nous fumes tous frappés au même instant du rapport merveilleux qui se trouvoit entre la tempête & la Musique; assurément ce rapport n'a pas été cherché par le Musicien, il ne l'y a pas même soupçonné. Ce qu'il a conçu comme une symphonie brillante, devint pour nous un tableau par le hasard des circonstances.[1]

[1] Michel-Paul Guy de Chabanon, *Éloge de M. Rameau* (Paris: de l'impr. de M. Lambert, 1764), 29–30. Quotations preserve the original orthography wherever possible, and all translations are my own unless otherwise stated. For an insightful discussion of the *Éloge*'s place both in eighteenth-century French discourse and in Chabanon's writings see Ghyslaine Guertin, 'Chabanon et l'héritage de Rameau', in *Rameau, entre art et science*, ed. Sylvie Bouissou, Graham Sadler and Solveig Serre (Paris: École des chartes, 2016), 133–141; Raphaëlle Legrand, 'Chabanon et Rameau: l'éloge paradoxal', *Musicorum* 17 (2007–2008), 65–79; Harry Robert Lyall, 'A French Music Aesthetic of the Eighteenth Century: A Translation and Commentary on Michel Paul Gui de Chabanon's *Musique considérée en elle-même et dans ses rapports avec la parole, les langues, la poésie, et le théâtre*' (PhD dissertation, North Texas State University, 1975), 30–34; and Edward R. Reilly, 'Chabanon's Éloge de M. Rameau', *Studies in Music from the University of Western Ontario* 8 (1983), 1–3. Guertin and Reilly, in particular, read the *Éloge* as a prolegomenon to Chabanon's subsequent body of writings, while Lyall states that the *Éloge* established the 'platform' for Chabanon to introduce his ideas '*à l'occasion* of Rameau's death' (31).

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> A few years ago, with several musical persons, I heard an evening concert. The concert hall was open on all sides. We were outside, and there was a terrible storm. The overture to *Pigmalion* was performed, and at the *fortissimo* of the reprise, a frightful flash of lightning suddenly struck, accompanied by claps of thunder. At the same moment, we were all struck by the marvellous relation between the storm and the music. Certainly, this correspondence had not been sought by the composer; he had not even suspected it. That which Rameau had conceived as a brilliant *symphonie* had become for us, by chance, a *tableau*.

Written by Michel-Paul Guy de Chabanon in his first work of lasting historical significance, the *Éloge de M. Rameau* (1764), the above passage describes an outdoor concert. The anecdote intrigues me in several different ways. It begins by setting the scene, a cloudy sky and an impending storm; the music, almost in the background, is intruded upon by reverberating claps. Provocatively, as if the audience is collectively struck by the same bolt of lightning, the music becomes something more: the music and the storm are one and the same because of their conceptual, even literal, similarities.

Looking at the text through another lens, however, we arrive at quite a different reading. Stories like this one typify the long eighteenth century's pervasive interest in animated statues.[2] Stemming from Ovid's *Metamorphoses*, the story of a statue coming to life 'is as central a fable as we have',[3] inhabiting such diverse disciplines as philosophy, art, music, science and religion, several of which are relevant to our understanding of Chabanon's account. On the one hand, the animated statue occupies a privileged place in early-modern spectacle. Numerous stage works besides Rameau's *Pigmalion* (1748) – including Jean-Baptiste Lully's *tragédie en musique Cadmus et Hermione* (1671), Michel de La Barre's *Le Triomphe des arts* (1700) and Jean-Jacques Rousseau and Horace Coignet's melodrama *Pygmalion* (1770) – depict statues stepping off their pedestals and attaining life. Importantly, these musical settings often portray their statues participating in or even directly revealing the moral of the story.[4] On the other hand, living statues form an integral part of eighteenth-century theories of sensibility, coming to life and acting as the mouthpiece for human enquiry. As is well documented, philosophers from René Descartes to Étienne Bonnot de Condillac all relied on moving sculptures (whether machines, statues or automata) to deliver their messages. In focusing on the supposed 'lived' experiences of their creations, these writers used them to sculpt an enlightened form of subjectivity, equating experience and knowledge with the sculptures' awakening.[5]

Rameau's version of the myth is perhaps the most famous, and certainly the most discussed in music scholarship, most likely for its conflation of these two tropes into a single musical event.[6] The curtain rises to reveal Pigmalion putting the finishing touches on a statue so beautiful that he is overcome with love and desire for it.[7] Unable to act upon these feelings for his creation, it appears

[2] Devin Burke, 'Music, Magic, and Machines: The Living Statue in *Ancien-Régime* Spectacle' (PhD dissertation, Case Western Reserve University, 2016). As George S. Hersey notes, the eighteenth century's engagement with animated statues is merely one point along a continuum of what he calls 'Pygmalionism'. George S. Hersey, *Falling in Love with Statues: Artificial Humans from Pygmalion to the Present* (Chicago: University of Chicago Press, 2009), 97–110 and 136–138.

[3] Kenneth Gross, *The Dream of the Moving Statue* (Ithaca: Cornell University Press, 1992), xi. Cited in Burke, 'Music, Magic, and Machines', 1.

[4] See respectively Burke, 'Music, Magic, and Machines'; Georgia Cowart, *The Triumph of Pleasure: Louis XIV and the Politics of Spectacle* (Chicago: University of Chicago Press, 2008); and Jacqueline Waeber, 'Le mélodrame au-delà de l'opéra: sur le *Pygmalion* de Rousseau', *Nouvelle revue d'esthétique* 12/2 (2013), 23–32.

[5] J. L. Carr, 'Pygmalion and the *Philosophes*: The Animated Statue in Eighteenth-Century France', *Journal of the Warburg and Courtauld Institutes* 23/3–4 (1960), 239–255.

[6] Exemplary analyses include Thomas Christensen, *Rameau and Musical Thought in the Enlightenment* (Cambridge: Cambridge University Press, 1993), 218–231; Daniel K. L. Chua, *Absolute Music and the Construction of Meaning* (Cambridge: Cambridge University Press, 1999), 99–101; and Brian Hyer, '"Sighing Branches": Prosopopoeia in Rameau's *Pigmalion*', *Music Analysis* 13/1 (1994), 7–50.

[7] While numerous studies on the Pygmalion narrative exist, I have found the following most helpful: Henri Coulet, *Pygmalion des lumières* (Paris: Éditions Desjonquères, 1998); Mary D. Sheriff, *Moved by Love: Inspired Artists and*

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as though Pigmalion will be forever alone. Venus, moved by the anguish of Pigmalion's unrequited love, grants his wish: unbeknownst to Pigmalion, Cupid zooms across the stage and brings his statue to life. Pigmalion and his sculpture are now able to be together in love. The climax of the story resides in the moment of animation. In Rameau's retelling, with a *livret* by Sylvain Ballot de Sauvot based on Antoine Houdar de la Motte's play, the statue's awakening receives a fascinating sonic analogue. (The relevant passage is given in Example 1.) At the close of Pigmalion's lament, Cupid flies across the stage and a lush harmony fills the air. Awash with euphonious sounds, the audience hears Pigmalion respond with wonder. An astonished Pigmalion bears witness as his statue slowly comes to life. She descends from her pedestal, walks toward her sculptor and sings, transforming before our very eyes from a mere prop into a moving, breathing character. The term for this transfiguration – of something inanimate becoming animate – is *prosopopoeia*, and it has long been used to describe the statue's first steps.[8] The statue thus becomes sensibility incarnate.

Crucially, Pigmalion and the statue experience this music along with the audience and thus embody the moment of transformation sensorially. In responding to E major's diegetic arrival, Pigmalion alerts the audience to its effect on him, attending to the music through sensory experience: 'Whence come these chords? What are these harmonious sounds?' ('D'où naissent ces accords? Quels sons harmonieux?'). The answers to these questions, of course, lie in the music. The source of these harmonies is none other than the *corps sonore*, or 'sonorous body', what Rameau believed to be the generator of the overtone series and hence the progenitor of all music. The momentous onset of E major, replete with arpeggiated flutes sounding the upper partials and droning strings the fundamental, intones the voice of nature.[9] Hearing this voice herself, the statue responds by narrating her animation through introspective reflection: 'What do I see? Where am I? What am I thinking? How is it that I have the power to move?' ('Que vois-je? Où suis-je? Et qu'est-ce que je pense? D'où me viennent ces mouvements?'). The moment of animation evokes the same experience within the audience as it does for the characters. As if speaking for the parterre below him, Pigmalion asks, 'By what intelligence has a dream seduced my senses?' ('Un songe a-t-il séduit mes sens?').[10] The sights, sounds and emotions of the *acte de ballet*'s defining *tableau* resonate throughout the concert hall, transforming the audience along with the statue on the stage.

One could say, then, that Chabanon is using the allegorical scene to represent his own animation. What strikes me as a reader is how he elicits his own transformation scene – that is to say, how he

Deviant Women in Eighteenth-Century France (Chicago: University of Chicago Press, 2004); and Victor I. Stoichita, *The Pygmalion Effect: From Ovid to Hitchcock*, trans. Alison Anderson (Chicago: University of Chicago Press, 2008).

[8] See J. Hillis Miller, 'Pygmalion's Prosopopoeia', in *Versions of Pygmalion* (Cambridge, MA: Harvard University Press, 1990), 1–12. For an application of Hiller's argument to music see Hyer, 'Sighing Branches'. The term prosopopoeia derives from the Greek roots *prósopon* (face, person) and *poiéin* (to make, to do), and is often synonymous with the act of personification.

[9] Sonic representations of the *corps sonore* in Rameau's operas are normally articulated by the strings, which are then complemented by bassoons in the tenor with flutes reinforcing the upper partials or *sons harmoniques*, often referred to as *sons flûtés*. See Geoffrey Burgess, 'Enlightening Harmonies: Rameau's *corps sonore* and the Representation of the Divine in the *tragédie en musique*', *Journal of the American Musicological Society* 65/2 (2012), 414. For more on acoustical nomenclature in eighteenth-century France see the entry 'Sons harmoniques ou sons flûtés' in Jean-Jacques Rousseau, *Dictionnaire de musique* (Paris: Duchesne, 1768), 449–450.

[10] It is quite possible these questions were added to the *livret* at Rameau's request. We know from Christensen's reconstruction that de la Motte's original text did not contain such overt imagery, but the librettist Ballot de Sauvot included them anyway. This was possibly to inflect the story with common ideas of the time, to reinforce the sensationalist basis of the *corps sonore*, or perhaps – as historian of science Kevin Lambert has argued – to promote his erudite music theory with the wider public. See Christensen, *Rameau and Musical Thought in the Enlightenment*, 228n, and Kevin Lambert, 'Hearing Pygmalion's Kiss: A Scientific Object at the Paris Opéra', *Physics in Perspective* 16 (2014), 417–439. For de la Motte's libretto see 'La Sculpture' or 'Cinquiéme Entrée' from *Le Triomphe des arts* (1700), in *Œuvres de Monsieur Houdar de la Motte*, six volumes (Paris: Prault, 1754), volume 6, 186–194. This version of the text was set by Michel de La Barre. See Michel de La Barre, *Le triomphe des arts* (Paris: Ballard, 1700). For a comparative study between La Barre's and Rameau's respective settings see Burke, 'Music, Magic, and Machines', 207–268.

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On entend une symphonie tendre et harmonieuse. Le théâtre devient plus éclairé.
[One hears a tender and harmonious symphony. The stage becomes very bright.]

L'Amour traverse d'un vol rapide le théâtre et secoue son flambeau sur la statue
(ce vol se fait sans que Pigmalion s'en aperçoive).
[Cupid flies quickly across the stage and strikes his torch on the statue
(this takes place without Pigmalion noticing).]

Example 1. 'D'où naissent ces accords?', Jean-Philippe Rameau, *Pigmalion, Acte de ballet, mis en musique par M. Rameau. Et exécuté pour la premiére* [sic] *fois par l'Académie Royale de Musique, le 27. Août 1748*, Scene 3, bars 43–58 (Paris: chez l'auteur, la veuve Boivin, Leclair, 1748), transcription Stephen Kovaciny

and the 'several musical persons' experiencing a *symphonie* become consciously aware of the *tableau*. The narrative's linguistic imagery supports this: the flash of lightning and clap of thunder not only reflect Pigmalion's inanimate statue being animated by Cupid's flame, but also speak to Chabanon the passive listener becoming animated by an emerging understanding of the music. It is a clever move to make. Many reading the *Éloge de M. Rameau* would be conversant with the narrative arc of this *acte de ballet*, which itself was one of the composer's most celebrated and popular works. Moreover, Chabanon seems conscious of this tactic. Throughout the eulogy, he consistently mentions experiences like this one, employing the approach of musical experience throughout his text: 'What am I to do to praise Rameau? To recall for my fellow citizens, if I may, the memory of some sensations that they have experienced in his works' ('Qu'ai-je donc à faire pour célébrer M. Rameau? A renouveller, si je puis, parmi mes concitoyens, le souvenir des sensations qu'ils ont éprouvées à la representations de ses Ouvrages').[11] The story is therefore a case in point. The suggestive sequence of events, the shifting of experience from the music to Chabanon's animation, and even the subject matter itself almost too perfectly parallel Rameau's scene. Like Pigmalion, Chabanon hears something in the music that wasn't there before; like the

[11] Chabanon, *Éloge de M. Rameau*, 5–6.

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statue, he voices his encounter and its effect on him. It seems the choice of *Pigmalion* has (as I will shortly elucidate) both meaning and significance, and it certainly reveals something about how Chabanon perceives music. But like all good stories, there is a twist. Chabanon's tale does not concern the transformation scene per se. Rather, he focuses on the 'frightful flash of lightning', 'accompan[ying] claps of thunder' and, above all, how these elements transform his aesthetic experience of the ballet's instrumental overture.

Using this hermeneutic window as both our point of departure and our guide, what follows is an attempt to reconstruct the sylleptic influences underpinning Chabanon's broader aesthetic transformation. *Syllepsis*, here derived from the work of the literary theorist Michael Riffaterre, attempts to distinguish between the immediate meaning of words in context and the meaning of words when read between texts. A word thus has two possible understandings, one that is meaningful and another that is significant, and Riffaterre employs this duality as a key component of intertextual reading.[12] I therefore engage syllepsis as a method for mediating ideas or concepts between, amongst and through their intertextual traces. For 'the intertext leaves in the text an indelible trace . . . that governs the deciphering of its literary message' ('l'intertexte laisse dans le texte une trace indélébile . . . qui . . . gouverne le déchiffrement du message dans ce qu'il a de littéraire').[13] Such a tactic echoes the ontological hermeneutics of Hans-Georg Gadamer, particularly the interpretative labour associated with reading a text: 'the voice that speaks to us from the past – be it text, work, trace – itself poses a question and places our meaning in openness', and our responsibility as readers is to 'attempt to reconstruct the question to which the transmitted text is the answer', to remember and recover these indelible traces.[14]

My more pressing claim, then, is that the retelling of this story re-enacts the musical problem it was originally intended to counter: how does one theorize the body, and thus the self, in and through music? Chabanon could have chosen any overture, instrumental symphony or even one of Rameau's keyboard pieces, but selected – rather consciously, I believe – an intertext laden with philosophical and musical baggage to probe this larger question. Unfolding in tandem with Chabanon's own transformation was a parallel transformation in eighteenth-century musical aesthetics that began to recast the body in music's own image, forcing writers, critics and musicians alike to reconsider the intermediation between music, emotion and meaning.[15] After all, Chabanon describes a collective, not individual, experience. As Ghyslaine Guertin has argued, Chabanon's ideas operate through an implicit union of – or, in some cases, linking between – 'universal' and 'singular' experiences, such that the musical work, often heard as a communal event, becomes the object of privileged experience for each listener.[16] This brings up two points that, while resolved within the ensuing discussion, require emphasis from the outset. First, what I am tracing here is a collection of messy and often contradictory accounts of what sound is, how

[12] Michael Riffaterre, 'Syllepsis', *Critical Inquiry* 6/4 (1980), 625–638.

[13] See Michael Riffaterre, 'La trace de l'intertexte', *La Pensée* 215 (1980), 5.

[14] Hans-Georg Gadamer, *Truth and Method*, trans. Garret Barden and John Cumming (New York: Telos, 1975), 337. Cited in Gary Tomlinson, *Music in Renaissance Magic: Toward a Historiography of Others* (Chicago: University of Chicago Press, 1993), 28.

[15] This intellectual moment is covered in detail in Roger Mathew Grant, *Peculiar Attunements: How Affect Theory Turned Musical* (New York: Fordham University Press, 2020); Alexis Roland-Manuel, *Sonate, que me veux-tu?: réflexions sur les fins et les moyens de l'art musical* (Lausanne: Mermod, 1957; republished Paris: Éditions Ivrea, 1996); and Violaine Anger, *'Sonate, que me veux-tu?': pour penser une histoire du signe* (Lyon: ENS Éditions, 2016). It should be noted that each of these texts treat Chabanon differently, and, as a result, somewhat conceal his importance in the history of musical aesthetics. While Grant places Chabanon among several other writers at the end of eighteenth-century affective debates, Roland-Manuel – whose text comprises four case studies – examines him as an interstitial figure between eighteenth- and nineteenth-century aesthetic philosophy. Anger, by contrast, uses Chabanon as a launching-point to discuss instead the semiotics of nineteenth- and twentieth-century instrumental music.

[16] Ghyslaine Guertin, 'L'universel et le singulier: l'esthétique de Michel-Paul Guy de Chabanon', *Horizons philosophiques* 132 (2003), 43–50.

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perception encounters and reconciles sound, how the perception and sensation of sound relate to each other, and, above all, how sound, perception and sensation inform the emerging definition of the modern musical subject. Understanding Chabanon, then, must be done (to borrow from Gary Tomlinson) in a manner that 'helps us to underscore the situatedness of . . . historical knowledge, to keep in full view the negotiation of divergent viewpoints – the intersection of differing interpreters, texts, and contexts – from which such knowledge emerges'.[17] In this sense, Chabanon acts as one of many possible chaperones to those navigating the labyrinthine ways and byways of a period fraught with intense thinking and spirited arguing about these issues, and, for this purpose, he will allow us to map the myriad connections between them.

The second point, intimated by the first, is that Chabanon's particular place within this network implies pathways that are otherwise uncharted, understudied or outright ignored. Though born in the French colony of Saint-Domingue (present-day Haiti), Chabanon relocated to Paris in the 1740s and remained there all his life.[18] During this time he developed a keen awareness of the Enlightenment's coming to terms with how music could provoke aesthetic experiences within listeners. For this reason, Chabanon's writings are often cited as advancing one of the first – if not the first – aesthetic theories of 'musical autonomy'. Yet despite this achievement, little has been written about how or why he comes to this conclusion. Thus, although I account for the modern musical subject's emergence by way of Chabanon's personal experience, it will become apparent that this aesthetic transformation represents (like the trope of the animated statue) that of the many, of a shared and collective experience. In this understanding, the enlightened body – be it Chabanon's, the statue's or our own – necessarily resides at the heart of musical experience; but it is also responsible for the physiological undercurrents and philosophical overtones of the Enlightenment's confrontation with its own subjectivity. Unlike any other figure of his time, as we shall see below, Chabanon participates in and even directly reveals this new subjectivity through this rhetorical prosopopoeia – that is to say, through his tale's materializing attentiveness to and subsequent voicing of his animation. Grounded at once through the science of acoustics, novel theories of sensory experience, and the musical theories that they engendered, Chabanon – stirred, as it were, by Rameau's theory of harmony – articulates an aesthetic theory based upon music's materiality. It is indeed the sudden realization of music's aesthetic autonomy, under the aegis of the statue's metaphorical becoming, that participates in the story's crystallization of 'the listening self'.

From Mechanical to Sensible

'. . . I heard an evening concert'. By the time Chabanon penned these words, the question of how music could influence listeners was already well worn. The early-modern era was rife with theories that attempted to explain how objects provoked physical, emotional and intellectual responses in subjects.[19] The most relevant example is Cartesian metaphysics, where sensation is a bodily reaction and understanding is an imaginative function. Since a human being is both body and mind, we must assume, to quote philosopher Alison Peterman, that each 'is a substance distinct from and independent of the other'.[20] As Jairo Moreno has argued, the earliest rumblings of this trend occurred in Descartes's *Compendium musicæ* (written 1618; published 1650), a treatise on music theory and aesthetics. Here, sound constitutes an object of perception – the work opens with

[17] Tomlinson, *Music in Renaissance Magic*, 6.

[18] Indeed, Chabanon's time in Saint-Domingue and cross-cultural experiences inform many aspects of his writings. See especially Olivia A. Bloechl, *Native American Song at the Frontiers of Early Modern Music* (Cambridge: Cambridge University Press, 2008), 216–222, and Bernard Camier, 'Musique et société coloniale, Saint-Domingue à l'époque de Chabanon', *Musicorum* 6 (2007), 13–34.

[19] Charles Dill, 'Rameau's Cartesian Wonder', *Eighteenth-Century Music* 14/1 (2017), 33–38.

[20] Alison Peterman, 'Descartes and Spinoza: Two Approaches to Embodiment', in *Embodiment: A History*, ed. Justin E. H. Smith (Oxford: Oxford University Press, 2017), 217.

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'the object of music is sound' ('Hujus objectum est Sonus') – and, as a direct result, forms the 'impetus . . . for inquiry about the figure to whom sound constitutes an object'.[21] Descartes's subsequent writings rehearse this sensitive trajectory in so far as they attempt to understand the relationship – not the division – between objects of perception and the various effects they produce in subjects. Perhaps nowhere is this more prevalent than in Descartes's final work, *Les Passions de l'ame* (1650), which advances not a theory of mind–body dualism but instead one of their union.[22] A perception arises from a physical object's impression on the senses; the passions, on the other hand, are caused by 'nothing other than the *vibration* imparted by the animal spirits to the [pineal] gland in the middle of the brain' ('n'est autre que l'agitation, dont les esprits meuvent la petit glande qui est au milieu du cerveau').[23] *Les Passions de l'ame* thus develops an aesthetic doctrine based at once on a theory of sense perception and a conjoined theory of mental representation, providing a framework for describing affective transmission as material action.

The resultant interpretation of the passions and their capacity to unite mind and body has significant consequences, most notably 'the disappearance of the [conscious] will as the locus of human agency, and its gradual replacement by the passions and affections (and later 'emotions') themselves and finally, by the body'.[24] What matters here is the turn from Cartesian representation toward sensationalist corporeality. Jean-Baptiste Dubos's celebrated *Réflexions critiques sur la poésie et sur la peinture* (1719) illustrates this development.[25] Deeply influenced by John Locke, Dubos's treatise made a substantial contribution to eighteenth-century thought by bringing British empiricism to French audiences. It was likewise responsible for heralding an enlightened aesthetic theory by enquiring into the role of 'sentiment', a word with overt sensory connotations. Sentiment, however, is not 'an explicit reference to the five senses, nor to sensory perception in general'. Rather, it is the proverbial 'sixth sense', the body's 'internal faculty that perceives beauty through the five senses'.[26] In its purest form, sentiment can be described as the inner feeling that arises in response to a work of art's sensory effects. While the word sentiment appears in earlier writings, Dubos's use of it gives an elevated role to the senses themselves. From then on, it was legitimate to consider aesthetic experience to be contingent upon the sensations of the beholder independent of rational principles. Sensibility had emerged.[27]

Sensationalist rhetoric, endorsed by the *philosophes*, Encyclopaedists and others, increasingly emphasized phenomenological experience over the phenomenon being experienced.[28] In the

[21] René Descartes [Renati Des Cartes], *Compendium musicæ* (Utrecht: Trajectum ad Rhenum, 1650), 5. Jairo Moreno, *Musical Representations, Subjects, and Objects: The Construction of Musical Thought in Zarlino, Descartes, Rameau, and Weber* (Bloomington: Indiana University Press, 2004), 14. See also Kate van Orden, 'Descartes on Musical Training and the Body', in *Music, Sensation, and Sensuality*, ed. Linda Phyllis Austern (New York: Routledge, 2002), 40–84.

[22] René Descartes, *Les Passions de l'ame* (Amsterdam: Louys Elzevier, 1650). See Deborah J. Brown, *Descartes and the Passionate Mind* (Cambridge: Cambridge University Press, 2006); Philip Fisher, *The Vehement Passions* (Princeton: Princeton University Press, 2002); and R. Darren Gobert, *The Mind–Body State: Passion and Interaction in the Cartesian Theater* (Stanford: Stanford University Press, 2013). For Descartes's conjoining of mind and body in the context of music and music theory see Roger Mathew Grant, 'Music Lessons on Affect and Its Objects', *Representations* 144 (2018), 36–37.

[23] Descartes, *Les Passions de l'ame*, 75 (my italics). I have chosen to translate *l'agitation* as 'vibration' to align with Descartes's understanding of sensation as resonance through our sensory organ's string-like nerves. See Veit Erlmann, *Reason and Resonance: A History of Modern Aurality* (New York: Zone Books, 2010), 29–68; Veit Erlmann, 'Descartes's Resonant Subject', in *The Auditory Culture Reader*, second edition, ed. Michael Bull and Les Black (New York: Bloomsbury, 2016), 37–52; and Carmel Raz, 'Reverberating Nerves: Physiology, Perception, and Early Romantic Auditory Cultures, 1750–1850' (PhD dissertation, Yale University, 2015), 17–19.

[24] Thomas Dixon, *From Passions to Emotions: The Creation of a Secular Psychological Category* (Cambridge: Cambridge University Press, 2003), 77.

[25] Jean-Baptiste Dubos, *Réflexions critiques sur la poésie et sur la peinture*, two volumes (Paris: Jean Mariette, 1719).

[26] Georgia Cowart, 'Sense and Sensibility in Eighteenth-Century Musical Thought', *Acta musicologica* 56/2 (1984), 254.

[27] Charles Dill, 'Music Criticism in France before the Revolution', in *The Cambridge History of Music Criticism*, ed. Christopher Dingle (Cambridge: Cambridge University Press, 2019), 71–78.

[28] Anne C. Vila, *Enlightenment and Pathology: Sensibility in the Literature and Science of Eighteenth-Century France* (Baltimore: Johns Hopkins University Press, 1997); Jessica Riskin, *Science in the Age of Sensibility: The Sentimental

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context of this genealogy, this shift in emphasis contextualizes eighteenth-century materialism as an aesthetic transfer from sensation to feeling, from affecting objects to affected subjects.[29] Denis Diderot, for instance, invested great power in sensing and feeling. In the middle of the century, Diderot published two *Lettres*, each concerning the sudden arrival of a different sense once withheld. The second of these, the *Lettre sur les sourds et muets* (1751), embodies the philosophe's approach through the ear and hearing. Taking the form of a dialogue, Diderot asks his interlocutor to envision an animated *homme-automate* that operates like a clock. He details, first, how the heart represents the clock's mainspring, then how other parts of the individual's chest constitute related components of its movement, and finally how the head is like a bell affixed with little hammers that ring on the hour. He continues:

> Elevez sur ce timbre une de ces petites figures dont nous ornons le haut de nos pendules; qu'elle ait l'oreille panchée, comme un musician qui écouteroit si son instrument est bien accordé. Cette petite figure sera *l'ame*. Si plusieurs des petits cordons sont tires dans le même instant, le timbre sera frappé de plusieurs coups, & la petite figure entendra plusieurs sons à la fois.[30]
>
> Above this bell, place one of those tiny figurines that decorate the tops of our clocks, and let it have its ear inclined like a musician who listens if his instrument is in tune. This tiny figurine will be the soul. If many of the little strings are pulled at the same time, the bell will be struck by several blows, and this little figure will hear several sounds at once.

Analogies like this one flood Diderot's texts and are meant to build on similar images found in Descartes and others.[31] The walking clock's true purpose, however, is soon revealed: the soul is unconscious of its existence unless it deliberately examines itself.[32] Subjectivity is made human only when one hears one's own inner workings tick.

Diderot's *Lettre sur les sourds et muets* was not the only text to explore a 'living' mechanical body. Among many examples, Étienne Bonnot de Condillac's epistemological fable is perhaps the most famous version. In his *Traité des sensations* (1754) Condillac imagines a statue that possesses, first, the sense of smell, then hearing, taste and sight, and finally touch. By presenting the sculpture with only one sense before gradually introducing others, the *Traité des sensations* lists what the statue knows at each step along the way. One notices a hierarchy in the way Condillac orders the senses: he begins with the four senses that cannot judge the external world and ends with the only sense that can, touch. In the chapter on hearing, for example, he theorizes that 'when the ear is struck, the statue becomes the sensation that it experiences. Thus, at will, we transform the statue into a noise, a sound, a symphony' ('Lorsque son oreille sera frappée, elle deviendra la Sensation qu'elle éprouvera. Ainsi, nous la transformerons, à notre gré, en un bruit, un son, une symphonie').[33] By contrast, touch is treated as a means to an end, used to explore the statue's capacity at last to experience the world outside itself. When Condillac begins to reunite the five senses in the second volume, made up of parts three and four, hearing is the second (after smell) to be

Empiricists of the French Enlightenment (Chicago: University of Chicago Press, 2002); and Barbara Maria Stafford, *Body Criticism: Imaging the Unseen in Enlightenment Art and Science* (Cambridge, MA: MIT Press, 1993).

[29] Grant, *Peculiar Attunements*, 4–15.

[30] Denis Diderot, *Lettre sur les sourds et muets, à l'usage de ceux qui entendent & qui parlent* (Paris, 1751), 112–113.

[31] The story of Descartes's reception in the eighteenth century is rather complex. As Aram Vartanian has argued, even those most ardently opposed to Cartesianism – Diderot chief among them – benefited from Descartes's approach, especially with regards to sensation and imagination. Aram Vartanian, *Diderot and Descartes: A Study of Scientific Naturalism in the Enlightenment* (Princeton: Princeton University Press, 1953).

[32] Diderot, *Lettre sur les sourds et muets*, 114–116.

[33] Étienne Bonnot de Condillac, *Traité des sensations*, two volumes (London and Paris: Bure, 1754), volume 1, 131–132.

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combined with touch. After stepping off its pedestal, the statue now traverses a forest and listens to its surroundings: 'Here the statue is the song of birds, there the noise of a waterfall, further on that of rustling trees, a moment later the noise of thunder or a terrible storm' ('Ici elle est le chant des oiseaux, là le bruit d'une cascade, plus loin celui des arbres agités, un moment après le bruit du tonnerre ou d'un orage terrible').[34]

And so we come full circle, hearing once more the terrible storm of Chabanon's tale. Initially presented as a curious story, Chabanon's recounting of his musical experience as a shift between hearing a *symphonie* and perceiving a *tableau* is an analogy not only for Pigmalion's statue doing the same but also for the time period's converging ideas about phenomenology. The shift from mechanical to sensible, coextensive with the turn from object to subject, is manifest in the changing conceptions of the body's relationship to the world around it: 'The living human being was no longer the Cartesian inflexible machine, manufactured from clockwork cogs and wheels, nor was it Condillac's inert marble statue. Rather, the organism was a *sensible* fluidity, shaped by its equally mutable environment'.[35] The *sensible* fluidity of the listening body, as the primary vehicle of musical sensibility, must be shaped by its physical response to music's vibrational materiality. As theorists focused on the human body's mechanical animation, they too began reimagining its bioacoustic sympathies, best exemplified by the eighteenth century's recasting of the statuesque body as a musical one, an instrument.

Tuning the Body Through Harmony

From Athanasius Kircher's never constructed (one hopes) 'cat organ' to Louis Bertrand Castel's ocular harpsichord, the boundaries of instrumentality blurred the lines between fact, fiction and philosophy. Yet one of the most telling invocations of instrumentality in the enlightened zeitgeist wasn't an instrument at all, but a metaphor: *l'homme clavecin*, or the human harpsichord. While the human instrument was a common trope of anthropomorphism throughout early modernity – indeed, even earlier – its reappearance in the Enlightenment personified eighteenth-century sentimentality and epistemology, with human bodies and their fibres being compared to harpsichords, keys and strings.[36] François Cartaud de La Vilate, for instance, writes: 'We are species of harpsichords that quiver with certain noises or that harmoniously vibrate when one consults the chords of their play' ('Nous sommes des espéces de clavecins, qui frémissent à de certains bruits, ou qui s'ébranlent harmonieusement quand on consulte les accords de leur jeu').[37] The naturalist Charles Bonnet, too, explains that 'each nervous fibre is a kind of key or hammer destined to render a certain tone' ('Chaque Fibre est une espèce de Touche, ou de Mateau destiné à rendre un certain ton').[38] Even Diderot asserts 'we are instruments endowed with sensibility and memory. Our senses are the keys struck by the nature that surrounds us' ('Nous sommes des instruments doués de sensibilité et de mémoire. Nos sens sont autant de touches qui sont pincées par la nature qui nous environe').[39] In this basic form, the human-harpsichord metaphor was a staunchly materialist

[34] Condillac, *Traité des sensations*, volume 2, 16.

[35] Stafford, *Body Criticism*, 417 (original italics).

[36] Studies focusing on the role of the body and its fibres in seventeenth-, eighteenth- and nineteenth-century musical discourse, particularly as they relate to the human–harpsichord trope, are indeed growing. I have found the following particularly helpful: Erlmann, *Reason and Resonance*; Grant, *Peculiar Attunements*; James Kennaway, ed., *Music and the Nerves, 1700–1900* (New York: Palgrave MacMillan, 2014); and Raz, 'Reverberating Nerves'.

[37] François Cartaud de La Vilate, *Essai historique et philosophique sur le goût* (1736; Geneva: Slatkine Reprints, 1970), 280.

[38] Charles Bonnet, *Essai de physiologie* (1755; Hindesheim: Olms, 1978), 13.

[39] Denis Diderot, *Entretien entre M. d'Alembert et M. Diderot,* in *Œuvres*, ed. Laurent Versini, five volumes (Paris: Robert Laffont, 1994–1997), volume 1, 616. While this work went unpublished during Diderot's lifetime, the fact remains that in the late 1760s these ideas were discursively crystallized. And, of course, it is quite possible that Diderot discussed these issues openly in salons that Chabanon attended. On Chabanon's participation in these salons – and on his relationship with Diderot at this time – see Laurine Quetin, 'Michel Paul Guy de Chabanon, "*Quelques circonstances de ma vie*"', *Revue Musicorum* 19 (2017), 15–58. For more on Bonnet's treatment of the fibre see Vila, *Enlightenment and Pathology*, 33–37.

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notion. The outside world roused the interior body through sympathetic vibration. Vibrating or reverberating nerves became the explicit focus of this materiality since they were responsible for all sensation, imagination and feeling. They had a primacy to them, an elementary unity, akin to the line in mathematics. Eighteenth-century thinkers treated the nervous fibre as a deterministic and authoritative unit of the body.[40]

As an anatomical object, the nerve resides within the body, covered by muscles, flesh and skin. It also has a unique anatomical agency since it is both the object of study and the instrument by which it is to be studied. It is by examining the nervous system that we sense how we sense. The *Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers* (1751–1765) describes the relationship between nerves and sensations in several articles, two of which inform my discussion. The first, 'Vibration', explains the matter as follows: 'sensations are effected by means of the vibration of the nerves, which proceed from external objects' ('On suppose que les sensations se font par le moyen du mouvement de *vibration* des nerfs, qui part des objets extérieurs').[41] 'Nerf', the second article, links especially to music, defining the headword as 'a long, white, round body similar to a string made up of different threads or fibres', which is 'the organ of our sensations' ('corps rond, blanc & long, semblable à une corde composée de différens fils ou fibres . . . [qui est] l'organe des sensations').[42] Descartes also conceives of the nerves as string-like bodies. In the *Compendium musicæ*, he refers to musical strings as *nervum*, facilitating the metaphorical slippage.[43] As we have seen, Descartes goes even further in *Les Passions de l'ame*. While examining how outside objects act against one's sensory organs, he explains that all objects affect the subject 'in the same manner when you pluck [*tire*] one end of a string [*corde*], you cause movement in another' ('En mesme façon que lors qu'on tire l'un des bouts d'une corde on fait mouvoir l'autre').[44] Read side by side, these descriptions recognize the experiential as a link between exterior sensations and interior nerves in an interdependent vibratory system, constituting the physiological and material forms of sensation.

Such sensory poetics relate directly to Jean-Philippe Rameau's comments on aurality. Thomas Christensen has noted that Rameau was careful to describe our experience of vibrating strings, evidenced by the twelve propositions and seven experiments included in his third treatise, *Génération harmonique, ou Traité de musique théorique et pratique* (1737).[45] For example, the second

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For more about the use of biological instrumentality in Diderot and his contemporaries see Wilda Anderson, *Diderot's Dream* (Baltimore: Johns Hopkins University Press, 1990); Paolo Gozza, 'Ragione e sensibilità: la metafora de clavicembalo sensible di Diderot', in *Musica e metafora: storia analisi ermeneutica*, ed. Francesco Finocchiaro and Maurizio Giani (Turin: Academia University Press, 2017), 23–40; and Philippe Sarrasin Robichaud, *L'Homme-clavecin, une analogie diderotienne* (Paris: Classiques Garnier, 2017).

[40] See Andrew Curran, 'Sublime Disorder: Physical Monstrosity in Diderot's Universe', *Studies on Voltaire and the Eighteenth Century* 2001/01 (2001), 132–150; Paul Ilie, *The Age of Minerva*, two volumes (Philadelphia: University of Pennsylvania Press, 1995), volume 2, 182–191; and George S. Rousseau, 'Nerves, Spirits, and Fibres: Towards Defining the Origins of Sensibility', in *Nervous Acts: Essays on Literature, Culture, and Sensibility*, ed. George S. Rousseau (Basingstoke: Palgrave Macmillan, 2004), 160–184.

[41] Anonymous, 'Vibration [no classification]', in *Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers*, ed. Denis Diderot and Jean le Rond d'Alembert, seventeen volumes (Paris: Briasson, David l'aîné, Le Breton, Durand, 1751–1765), volume 17, 230. Hereafter cited as *Encyclopédie*.

[42] Anonymous, 'Nerf, (*Anatomie*)', in *Encyclopédie*, volume 10, 100.

[43] Descartes, *Compendium musicæ*, 12: 'Sonus se habet ad Sonum ut nervus ad nervum' ([One] sound is related to sounds as [one] string is related to strings). Rameau would repeat Descartes's dictum about sounds and strings in the *Traité de l'harmonie reduite à ses principes naturels* (Paris: Ballard, 1722), xii and 1–3; see Jean-Philippe Rameau, *The Complete Theoretical Writings of Jean-Philippe Rameau*, ed. Erwin R. Jacobi, six volumes (American Institute of Musicology, 1967–1972), volume 1, 18 and 30–32: 'Sound is to sound as string is to string' ('Le *Son* est au *Son* ce que la *Corde* est à la *Corde*'). Hereafter cited as *CTW*.

[44] Descartes, *Les Passions de l'ame*, 19. I have chosen to translate *tire* as 'pluck' instead of 'pull' or 'tug' since the broader context of the entire article describes the resonant interactions between the nerves, the animal spirits and the pineal gland (see pages 17–19).

[45] For an account of the influences and ramifications of these experiments and propositions see Christensen, *Rameau and Musical Thought in the Enlightenment*, 135–159.

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experiment shows how bowing only one string on a cello or viol will cause another unbowed string to vibrate sympathetically. This formulation of resonance relates especially to the twelfth and final proposition:

> Ce qu'on dit des Corps sonores doit s'entendre également des Fibres qui tapossent le fond de la Conque de l'Oreille; ces Fibres sont autant de corps sonores auxquels l'Air transmet ses vibrations, et d'où le sentiment des Sons et de l'Harmonie est porté jusqu'à l'Ame.[46]

> What is said of *corps sonores* must also be understood of the fibres lining the base of the cochlea of the ear. These fibres are also *corps sonores*, to which the air transmits its vibrations, and from which the feeling [*sentiment*] of sounds and harmony is carried to the soul.

The ear itself is a *corps sonore*, which places the listener into an intimate relationship with the sounding body. This correlation allows him to experience the proportions of the divided, intellectualized string as an inherent part of the undivided, natural string without reflection. Indeed, the ear's capacity to hear harmony, Rameau states, derives 'directly and immediately' from the *corps sonore*'s resonance.[47] The *corps sonore* is both what we hear and how we hear.[48]

By the 1750s and 1760s, Rameau's latent materialist tendencies had garnered greater force. Goaded by Jean-Jacques Rousseau's *Lettre sur la musique françoise* (1753), Rameau saw fit to describe harmony's role in affecting his listeners emotionally. Throughout his response, the *Observations sur notre instinct pour la musique* (1754), Rameau encourages us to regard musical gestures and their expressivity as attributes of the fundamental bass and *corps sonore*.[49] Now, however, he relies upon the concept of 'instinct' to make his claims. 'Instinct' (as well as the interchangeable 'sentiment') symbolizes for Rameau how listeners, regardless of musical training, intuitively hear music and its expression, including but not limited to the principles and laws he had established within his harmonic theory.[50] To this end, Rameau directly relates harmonic motion to

[46] Jean-Philippe Rameau, *Génération harmonique, ou Traité de musique théorique et pratique* (Paris: Prault, 1737), 7; *CTW*, volume 3, 18. Cited in Maryam Moshaver, 'Rameau, the Subjective Body, and the Forms of Theoretical Representation', *Theoria: Historical Aspects of Music Theory* 23 (2016), 126.

[47] Rameau, *Génération harmonique*, 53; *CTW*, volume 3, 41.

[48] Marie-Elisabeth Duchez, 'Valeur épistémologique de la théorie de la basse fondamentale de Jean-Philippe Rameau: connaissance scientifique et représentation de la musique', *Studies on Voltaire and the Eighteenth Century* 254 (1986), 89–130; Catherine Kintzler, 'L'oreille, premier instrument de musique?' *Methodos: Savoirs et textes* 11 (2011) http://journals.openedition.org/methodos/2542; and Moshaver, 'Rameau, the Subjective Body, and the Forms of Theoretical Representation'. Of course, Rameau's conclusion here is specious at best. While the composer-theorist was emphatic about the discernibility of the *corps sonore* – that is to say, his ear's capacity to hear a *son fondamental* and its *sons harmoniques* clearly and distinctly – others remained sceptical. Indeed, even Rameau sometimes struggled to hear these sounds, and many experiments in the *Génération harmonique* are complete fallacies riddled with scientific blunders. For an instructive interpretation of the *corps sonore*'s lack of perceptual materiality see Cornelia Fales, 'Listening to Timbre during the French Enlightenment', in *Proceedings of the 2005 Conference on Interdisciplinary Musicology*, ed. Caroline Traube and Serge Lacasse (Montreal: Centre for Interdisciplinary Research in Music, Media, and Technology, 2005), 1–11. Even so, the 'materiality' of upper partials was well confirmed and empirically demonstrated, and Rameau's comments – especially from the *Génération harmonique* onwards – were informed by this fact. See Joseph Sauveur, *Traité de la théorie de la musique* (Paris, 1697); Joseph Sauveur, *Système générale des intervalles* (Paris, 1701); and Jean-Jacques Dortous de Mairan, 'Discours sur la Propagation du Son dans les différents Tons qui le modifient', *Histoire de l'Académie Royale des Sciences. Année MDDXXXVII. Avec les Mémoires de Mathématiques et de Physique, pour la même Année, Tirés des Registres de cette Académie* (Paris: Imprimerie Royale, 1737), 2–20.

[49] Jean-Philippe Rameau, *Observations sur notre instinct pour la musique, et sur son principe* (Paris: Prault, Lambert, Duchesne, 1754). See Dill, 'Rameau's Cartesian Wonder', 31.

[50] Cynthia Verba, *Dramatic Expression in Rameau's 'Tragédie en Musique': Between Tradition and Enlightenment* (Cambridge: Cambridge University Press, 2013), 5. See also David E. Cohen, 'The "Gift of Nature": "Musical Instinct" and Musical Cognition in Rameau', in *Music Theory and Natural Order from the Renaissance to the Early Twentieth Century*, ed. Suzannah Clark and Alexander Rehding (Cambridge: Cambridge University Press, 2001), 68–92.

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human emotion. As Cynthia Verba summarizes: 'When the emotions or actions of the text "progress" to the darker and less benign realm or to the sadder and more resigned emotions, there is a harmonic tendency to favor the subdominant or flat direction'; meanwhile, when feelings turn to 'joy, hope or love', Rameau favours the 'dominant or sharp' side of the harmonic spectrum.[51]

While simplistic, Rameau's reading of harmony in this way nevertheless shows us that he conceived of music itself as capable of communicating emotion to the audience directly through its harmonic succession (melody, he maintains throughout his writings, is merely its product).[52] Harmony's resonance, he explains later, is alone responsible for generating emotion:

> S'il s'agissoit ici de comparaisons, n'attribueroit-on pas naturellement à la joye cette foule de descendans qu'offrent les soumultiples, dont la résonance indique l'existence? . . . Et par une raison toute opposée, n'attribueroit-on pas aux regrets, aux pleurs, &c. ces multiples dont le morne silence n'est réveillé que par des divisions à l'unisson de Corps qui les fait frémir?[53]

> If comparisons were to be made [between the dominant and subdominant], wouldn't one naturally attribute to joy this crowd of descendants that the overtones offer, whose resonance indicates their existence? . . . And by the complete opposite reasoning, would we not attribute regrets, tears, and so on to [the submultiples, below the fundamental sound], whose mournful silence is awoken only by their division at the unison with the sounding body that makes me quiver [that is, vibrate sympathetically]?

Though not an explicit reference to *l'homme clavecin* (Rameau never uses the term), the metaphor certainly forms the underlying basis for a theory of affective transmission: the *corps sonore*, Rameau believes, stirs music's emotional resonance within the reverberating human body. Remember, the nerves form a connected network; as Diderot had described several years earlier, musical sensation 'depends on a particular disposition not only of the ear, but of the whole system of nerves. If there are resonant [parts of the] head, there are also bodies I would willingly call harmonic' ('En Musique, le plaisir de la sensation dépend d'une disposition particulière non seulement de l'oreille, mais de tout le système des nerfs. S'il y a des têtes sonantes, il y a aussi des corps que j'appellerois volontiers harmoniques').[54] For if the ear's fibres are resonant strings and musical sensations affect the entire body, a rather telling idea appears in Rameau's chapter on expression in the late *Code de musique pratique* (1760): 'Harmony . . . as given by the *corps sonore* . . . must produce on us, who are passive harmonic bodies, the most natural and therefore most common effect to all' ('L'Harmonie . . . tel que la donnent les corps sonores . . . doit produire sur nous, qui sommes des corps passivement harmoniques, l'effet le plus naturel, & par conséquent le plus commun à tous').[55] The *corps sonore* affects us because our bodies are comprised of hidden resonant strings. We respond to the *corps sonore* because we are *corps sonores*.

[51] Verba, *Dramatic Expression in Rameau's 'Tragédie en Musique'*, 26.

[52] As Charles Dill has shown, Rameau believed that harmonic succession and progression carried with them linguistic properties, allowing him to treat music as an intelligible language syntagmatically. See 'The Influence of Linguistics on Rameau's Theory of Modulation', in *Rameau, entre art et science*, ed. Bouissou, Sadler and Serre, 397–408.

[53] Jean-Philippe Rameau, *Observations sur notre instinct pour la musique*, 52–54; *CTW*, volume 3, 292–293. Translation adapted from Nathan Martin, review of *Dramatic Expression in Rameau's 'Tragédie en Musique': Between Tradition and Enlightenment* by Cynthia Verba, *Notes* 71/1 (2014), 76.

[54] Diderot, 'Lettre a mademoiselle . . . ', in *Lettre sur les sourds et muets*, 299. Cited in Roger Mathew Grant, 'Peculiar Attunements: Comic Opera and Enlightenment Mimesis', *Critical Inquiry* 43/2 (2017), 565. See also Chua, *Absolute Music and the Construction of Meaning*, 98–99.

[55] Jean-Philippe Rameau, *Code de musique pratique . . . avec de nouvelles réflexions sur le principe sonore* (Paris: Imprimerie Royale, 1760), 165; *CTW*, volume 4, 190. There is considerable evidence that Diderot helped Rameau draft an early version of the 'Preface' to *Démonstration du principe de l'harmonie* (1750), entitled 'Mémoires où l'on expose les fondements du système de musique theorique et pratique de M. Rameau', which the composer-theorist read to the Académie française in 1749. It is

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That Rameau reaches for an expressive doctrine to justify his prized *principe de l'harmonie* should surprise no one familiar with his writings. Structures of feeling that reconceptualized the body through harmony were common throughout the early modern era, drawing influence from both the *musica humana* tradition and the novel theories of sensibility outlined above, and Rameau would have been keen to borrow opportunistically from such sources. While Rameau eventually abandons aesthetics for universal mysticism – believing the *corps sonore* to be the divine seed of all human knowledge – his attempt to relate the body specifically to his music theory is nevertheless essential for understanding Chabanon's *De la Musique considérée en elle-même et dans ses rapports avec la parole, les langues, la poésie et la théâtre* (1785) and its variation on the same theme:

> Les sons aigus ont je ne sais quoi de clair & de brillant qui semble inviter l'ame à la gaîté. Comparez les cordes hautes de la harpe aux cordes basses du même instrument, vous sentirez combine celles-ci disposent plus facilement l'ame à la tendresse: qui sait si les larges ondulations des cordes longues & peu tendues, ne communiquent pas à nos nerfs des vibrations semblables, & si cette habitude de notre corps n'est pas celle qui nous donne des sensations affectueses? L'homme, croyez-moi, n'est qu'un instrument; ses fibres répondent aux fils des instrumens lyriques qui les attaquent & les interrogent.[56]

> High sounds have an inexplicable clarity and brilliance that seem to invite the soul to gaiety. If you compare the treble strings of the harp to the bass notes of the same instrument, you will perceive how the latter more easily dispose the soul to tenderness. Who knows if the wide undulations of these long and less taut strings are not communicating similar vibrations to our nerves and if this habit of our body is not what gives us the inner feelings of affection? Believe me, the human body is only an instrument. Its fibres respond to the sounds of lyric instruments that attack and provoke them.

The master metaphor notwithstanding, Chabanon's invocation of the nerves and their ability to receive tones resembles Rameau's description of sounding bodies and passive harmonic bodies in aesthetic approach and scope. The high notes ('dominant' direction) are juxtaposed against the lowest ('subdominant' direction) in both musical quality and physiological affect. This citation of instrumental agency, then, does not employ the broader Enlightenment trope alone. It appears also to be a conscious parallel to Rameau's use of auditory fibres as resonant strings. What is a harp string but a *corps sonore*? Along similar lines, what is a nerve but our interior *corps sonore*?

Feeling Analogies

The human harp(sichord) undergirds the body's tacit attunement to its sonorous environment, from works for the stage to the natural world around us. Humanity is harmonic, to borrow from Diderot. Yet questions still linger. After all, how, exactly, does one experience emotion musically? Although Rameau is less than forthright in his assertions, chalking it up to a vague resonance, Chabanon addresses these concerns by relating Rameau's harmonic theory to two modes of

somewhat easy to detect Diderot's probable influence on Rameau's *corps passivement harmonique*, especially if we consider the *Code*'s textual history and its numerous publication delays throughout the 1750s. See Thomas Christensen, 'Diderot, Rameau and Resonating Strings: New Evidence of an Early Collaboration', *Studies on Voltaire and the Eighteenth Century* 323 (1994), 131–166. (Rameau's 'Mémoire où l'on expose les fondements du système de musique théorique et pratique' is reproduced at 153–166.) See also Béatrice Durand-Sendrail, 'Diderot et Rameau: archéologie d'un polémique', *Diderot Studies* 24 (1991), 85–104.

[56] Michel-Paul Guy de Chabanon, *De la Musique considérée en elle-même et dans ses rapports avec la parole, les langues, la poésie et la théâtre* (Paris: Tissot, 1785; facsimile edition, Geneva: Slatkine Reprints, 1969), 108.

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expérience common in eighteenth-century affective doctrines, *sensation extérieure* and *sentiment inné* (sometimes *intérieur*). He uses these experiential modes to unify a single phenomenological engagement with music, such that an external sound strikes our ear and some internal feeling arises as a result: 'Music assimilates (as best it can) its noises to other noises, its movements to other movements, and the sensation it brings to sentiments that are analogous to them' ('Elle assimile (autant qu'elle peut) ses bruits à d'autres bruits, ses mouvemens à d'autres mouvemens, & les sensations qu'elle procure, à des sentimens qui leur soient analogues').[57] Sensation and sentiment function as opposite poles of musical experience: one side is the 'hearing' of a sound and the other is the 'hearing' of an analogous feeling.

For some, this may not seem so radical. Many others assert, as we encountered above, a comparable binary between sensation and sentiment. There are even veritable parallels with dualistic perception and passion, as well as aesthetically induced imitation and representation. For example, Charles Batteux theorized mimesis as the singular principle by which artworks express their objects. Under a broader notion of representation (if understood as *re-present* or *present again*), beauty was perceived through a work of art's ability to depict its object(s) – for instance, how accurately a painting retraced a bowl of fruit or a sculpture matched the contours of a body.[58] Representation was also said to participate in a work of art's ability to elicit passionate response. The feelings an artwork provokes in the beholder lie in a conceptual approximation, or 'verisimilitude' (*vraisemblance*), between an object and the feeling it is meant to arouse. 'The copy of the object', Dubos explains, 'excites in us a copy of the passion that the imitated object would itself have excited' ('La copie de l'objet doit . . . exciter en nous une copie de la passion qui ressemble à celle que l'objet imité y auroit pû exciter').[59] As the basis for a theory of art, eighteenth-century mimesis serves to elicit the passions, an idea laid forth by Descartes a generation earlier. In terms of music, which like all art forms was also considered imitative, it is verisimilitude that creates an aesthetic truth because music can represent sounds found in nature: 'There is truth', Dubos writes, 'in a symphony composed to imitate a storm' ('Il y a de la verité dans une symphonie, composée pour imiter un tempête').[60]

A closer reading of Chabanon's argument, however, reveals a difference not of degree but of kind.[61] A well-known critic of musical imitation, Chabanon was sceptical about this proposed mimetic framework. This is not to say that imitative aspects did not exist at all (painting, for

[57] Chabanon, *De la Musique considérée en elle-même*, 56. Compare Michel-Paul Guy de Chabanon, *Observations sur la Musique et principalement sur la métaphysique de l'Art* (Paris: Tissot, 1779; facsimile edition, Geneva: Slatkine Reprints, 1969), 35: 'Music assimilates (as best it can) its noises to other noises, its movements to other movements, and, more than that, its sensations to our sentiments' ('Elle assimile (autant qu'elle le peut) ses bruits à d'autres bruits, ses mouvemens à d'autres mouvemens, & plus que tout cela, ses sensations à nos sentimens'). Most of Chabanon's *Observations sur la Musique* was reprinted with significant alterations as the first part of *De la Musique considérée en elle-même* six years later – although four of the first part's chapters (1, 20, 21 and 22) appear out of order in the second. According to Chabanon, he never intended to publish this abridged version separately. A member of the Académie des Belles Lettres et Inscriptions since 1760, he was under consideration for membership in the Académie Française in 1779 and felt its publication might help his chances (*Observations sur la Musique*, vi–vii). As a matter of fact, he was denied twice before this in 1776 and 1777 by Jean le Rond d'Alembert, the *secrétaire perpétuel* at the time, supposedly for his lack of publications. However, if we are to believe Melchoir Grimm's account, d'Alembert's decision was politically motivated. Chabanon finally ascended to the academic pantheon, replacing Étienne Lauréault de Foncemagne, and delivered his first address on 20 January 1780, much to d'Alembert's chagrin. See *Correspondance littéraire, philosophique et critique*, ed. Maurice Tourneux, sixteen volumes (1753–1793; Paris: Garnier Frères, 1877–1882), volume 12, 36–39. For a thorough comparison of the variants between Chabanon's two treatises see Lyall, 'A French Music Aesthetic of the Eighteenth Century', 369–377.

[58] Charles Batteux, *Les Beaux-Arts réduits à un même principe* (1746; Geneva: Slatkine Reprints, 1969).

[59] Dubos, *Réflexions critiques*, volume 1, 25. See also Grant, 'Music Lessons on Affect and Its Objects', 36–39.

[60] Dubos, *Réflexions critiques*, volume 1, 434.

[61] For a rather insightful comparison between Dubos and Chabanon see Catherine Dubeau, 'De la poétique à l'esthétique: imitation, beaux-arts et nature du signe musical chez Jean-Baptiste Dubos (1670–1742) et Michel-Paul Guy de Chabanon (1730–1792)' (MA thesis, Université Laval, 2002).

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instance, 'is by essence obligated to imitate with fidelity' ('La peinture est tenue par essence à imiter, & fidellement')),[62] but there remain problems with mimesis as a governing principle:

> Il ne suffit pas d'enoncer généralement *que les Arts sont l'imitation de la Nature*. Ces mots ont un sens plus ou moins clair, suivant l'Art auquel on les applique: relativement à tel Art en particulier, peut-être n'ont-ils aucun sens. Si vous dites que l'Art de peindre & de sculpter est l'imitation de la nature, je vous entends: tout ce que la nature a formé de sensible à nos yeux, mon œil doit le retrouver sur la toile & sur la pierre . . . Mais de quoi la nature nous servira-t-elle pour juger d'un Ouvrage d'Architecture? Ou a-t-elle placé le modèle que je dois confronter avec l'œuvre de l'Art? Direz-vous que ce modèle existe en nous, que le type ideal du beau est dans notre tête? Cette idée toute platonique me paroît creuse & vuide. Ce que j'y vois de plus clair, c'est que vous me renvoyez au tact du gout & du sentiment.[63]
>
> It is not enough to state generally that *the arts are the imitation of nature*. These words only have meaning depending on the art to which they are applied: relative to any particular art, perhaps they do not have any meaning. If you say that the art of painting and sculpture is the imitation of nature, I understand you: everything that nature has formed that is perceptible to our eyes, my eye should recognize on the canvas and in the stone . . . But with what has nature furnished us by which we judge a work of architecture? Where has it placed the model that I must compare with the work of art? Are you saying that this model exists within us, that the ideal type of beauty is in our heads? This Platonic idea appears hollow and empty to me. What I see clearly there is what is returned to the delicacy of my taste and sentiment.

By mocking mimesis openly, Chabanon derides both the relevance and perceptibility of artistic imitation. That music can depict a storm, then, means little, since music – unique among the arts – 'pleases not by imitation but by the sensation it procures' ('La Musique au contraire plait sans imitation, par les sensations qu'elle procure').[64] Following this idea through, Chabanon ultimately contends that music can portray anything one wishes because it imperfectly depicts all.[65]

As is well known, music was also said to be an imitation or 'sign' of the inarticulate cries of the passions, an idea championed by Jean-Jacques Rousseau. In Rousseau's thinking, music and language shared a common origin because they both (at least initially) intended to communicate emotion. The first guttural cries of early humans carried with them vocal accents, which almost operatically signified affective states from speaker to listener. These accents, Rousseau writes, 'penetrate to the very depths of the heart' through this semiotics.[66] As expressions of desire, these inarticulate cries would eventually evolve into articulated speech, allowing us to communicate more effectively over time. While this narrative did not begin with Rousseau, the eloquent Genevan did become the primary target for those in disagreement. As with his critique of Dubos, Chabanon sets his sights on the very foundation of Rousseau's argument: 'All the power of music, it has been said, consists in imitating the inarticulate

[62] Chabanon, *De la Musique considérée en elle-même*, 62.

[63] Chabanon, *Observations sur la Musique*, 166–167 (original italics). For a contemporary account of architecture's mimetic apparatus see Nicolas Le Camus de Mézières, *Le Génie de l'architecture, ou l'analogie de cet art avec nos sensations* (Paris, 1780).

[64] Chabanon, *De la Musique considérée en elle-même*, 62.

[65] Chabanon, *De la Musique considérée en elle-même*, 62–63. On the perceptibility of artistic imitation in Chabanon's writings see Susanna Caviglia, 'M. P. G. de Chabanon et J. S. Duplessis: un idéal de vérité', *Musicorum* 17 (2007/2008), 9–11. Duplessis was a French painter known for the clarity of his portraits. Other subjects include Christophe Gabriel Allegrain, Louis XVI, Christophe Willibald Gluck and Benjamin Franklin. In fact, Duplessis's portrait of Franklin appears on the United States hundred-dollar note and is currently on display in the White House Oval Office in Washington, DC.

[66] Jean-Jacques Rousseau, *The First and Second Discourses together with Replies to Critics and the Essay on the Origin of Languages*, ed. and trans. Victor Gourevitch (New York: Harper and Row, 1986), 243. Cited in Downing A. Thomas, *Music and the Origin of Languages: Theories from the French Enlightenment* (Cambridge: Cambridge University Press, 1995), 101.

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cry of the passions, but how is a melody made from a passionate cry? This is what bothers me. Does the precept amount to inferring the cry of a passion within an air? . . . This is not at all [music's] foundation, basis, or essence' ('Toute la puissance de cet Art, a-t-on dit, consiste à imiter le cri inarticulé des passions. Mais d'un cri, comment fait-on un chant? Voilà ce qui m'embarrasse. Le précepte se réduit-il à insérer dans un air le cri d'un passion? . . . ce n'en est plus le fonds, la base & l'essence').[67] Chabanon comes to view music and language as 'sisters rather than daughters of one another' ('sœurs, & non filles l'une de l'autre') because song developed independently from speech.[68] By imagining distinct origins for each, Chabanon proposes instead that 'musical sounds are not signs that express the song, they are the song itself' ('les sons en Musique ne sont pas les signes qui experiment le chant, ils sont le chant même'), and that sounds – whether real or imagined – 'are not the expression of the thing, they are the thing itself' ('On chante, on note les sont que l'on a dans la tête: ces sons ne sont pas l'expression de la chose, ils sont la chose même').[69] Music is a language all its own.[70]

Chabanon's new dictum that music is a language apart from all others relates to Rameau's theory of the fundamental bass, which, as Allan Keiler has shown, functions as a metalinguistic system.[71] Rameau believes the fundamental bass, as a representation of harmonic succession and progression, behaves grammatically. Rameau introduced this notion first in his *Nouveau systême*, where he claims that any individual, regardless of musical experience, can sing the diatonic order of the scale because the principle of harmony rests within us. As shown in Figure 1, each note of the G major scale is conceptually accompanied by an implied fundamental bass, a phenomenon known as *sous-entendu*.[72] Here, the fundamental bass note $\frac{G}{3}$ supports the melodic note $\frac{G}{24}$; likewise,

[67] Chabanon, *De la Musique considérée en elle-même*, 102. The relationship between Rousseau and Chabanon's musical thought is indeed quite complex. For more on this topic see Claude Dauphin, 'Michel de Chabanon: détracteur ou continuateur de Rousseau?', in *Regards sur le 'Dictionnaire de Musique' de Rousseau: des Lumières au romantisme*, ed. Emmanuel Reibel (Paris: Vrin, 2016), 155–168; Françoise Escal, 'Un contradicteur de Rousseau. A l'horizon de l'opéra: voix, chant, musique selon Chabanon', in *L'Opéra au XVIIIe siècle: actes du colloque organisé à Aix-en-Provence par le Centre aixois d'études et recherches sur le XVIIIe siècle, les 29, 30 avril et 1er mai 1977* (Marseille: Diffusion, J. Laffitte, 1982), 463–475; and Jacqueline Waeber, 'Déconstruire Rousseau: Chabanon annotateur du *Dictionnaire de musique*', *Annales de la Société Jean-Jacques Rousseau* 49 (2010), 245–280.

[68] Chabanon, *De la Musique considérée en elle-même*, 229.

[69] Chabanon, *De la Musique considérée en elle-même*, 167–168.

[70] Chabanon says as much in his letter to the editor to the *Mercure de France*, Jacques Lacombe, in response to Gluck's letter announcing his desire to come to Paris. Michel-Paul Guy de Chabanon, 'Lettre de M. de Chabanon sur les propriétés musicales de la langue française', *Mercure de France* (January 1773), 183. On Chabanon's relationship with Lacombe, particularly the latter's *Le Spectacle des Beaux-Arts* (1758), see Waeber, 'Déconstruire Rousseau', 275–278.

[71] Allan Keiler, 'Music as Metalanguage: Rameau's Fundamental Bass', in *Music Theory: Special Topics*, ed. Richmond Browne (New York: Academic Press, 1981), 83–100.

[72] While I say 'phenomenon' with a grain of salt, *sous-entendu* occupies a special place in Rameau's musical thought. He says that the *son fondamental* is *toujours sous-entendu*, or that the *dissonances mineures* of seventh chords are *sous-entendues*. Like many other aspects of his writings, it has not gone without its fair share of interpretations. David Cohen interprets *sous-entendu* quite literally as 'to supply mentally in the act of hearing an element that is not actually present in the acoustical stimulus' (Cohen, 'The "Gift of Nature"', 79, note 11). He thus sees *sous-entendu* as a type of machinery that aids in understanding the fundamental bass. Jairo Moreno explains it as an imagined voice that engenders all musical phenomena with some sort of psychological meaning, most notably by assigning a harmonic function to a chord during a cadence. To him, it is specifically *dissonances sous-entendues* that allow Rameau to conceptualize all harmonic motion through its paradigmatic *cadence parfait* (Moreno, *Musical Representations, Subjects, and Objects*, 94–100). For Thomas Christensen, who translates *sous-entendre* as 'to impute', Rameau's usage of the concept places the role of implication on the listener or the performer (Christensen, *Rameau and Musical Thought in the Enlightenment*, 129). Naomi Waltham-Smith, too, interprets *sous-entendu* as something for the listener or performer to actualize, as what 'may or may not be heard', since *sous-entendre*, as an analytical hearing, can function as a 'deconstruction' of the musical surface, 'opening up music's sounding in the direction of listening and analysis' (Naomi Waltham-Smith, 'The Time It Takes to Listen', *Music Theory Spectrum* 39/1 (2017), 22). Further, Maryam Moshaver's interpretation identifies *sous-entendu* as a tonal compass, one that 'originates in the temporal displacement [of] the fundamental sound' from the surface of the music, but nevertheless functions in anything from the reconciliation of intonation to how music acts upon the memory (Moshaver, 'Rameau, the Subjective Body, and the Forms of Theoretical Representation', 124–125). Even Carl Dahlhaus has discussed the provocative *sous-entendu*, claiming

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Figure 1. Melodic derivation from Rameau's fundamental bass, in Jean-Philippe Rameau, *Génération harmonique, ou Traité de musique théorique et pratique* (Paris: Prault, 1737), example VI. Reproduced from gallica.bnf.fr

when the diatonic scale ascends, the fundamental bass note $\frac{D}{9}$, a fifth higher, supports $\frac{A}{27}$; and so on. The individual sound represents only its constituent parts, whereas its successive ordering represents either a harmonic or melodic progression.[73] In this sense, the fundamental bass, through its well-formed connections (*liaison en harmonie*), acts as would a language. To Rameau's ear, then, a harmonic progression is governed by the pure tone relationships rooted in nature and thus conforms to a linguistic order.[74]

Tonal organization becomes something of a leitmotiv throughout Chabanon's writings. In the *Éloge de M. Rameau*, for instance, he explains that the 'successive order' of musical tones is 'prescribed' by nature and 'immutable'.[75] Later in *De la Musique considérée en elle-même*, he maintains that we arrange pitches into their diatonic order because of our instinctive aurality (*sous-entendu*). With this autonomous rhetoric in hand, Chabanon resolves that individual sounds are themselves incapable of expressing meaning; but once chained together melodically, the whole has the means to transform into a referential semiotic system:

> Toute sensation produite par un objet sans mouvement, ne peut guères être imitative, elle ne peut avoir aucune conformité avec nos actions, nos mœurs, nos caractères. Ne faites entendre qu'un son à l'oreille, & continuez-en la durée, cette sensation morte & inactive ne peindra rien à l'esprit. Au contraire, faites succéder plusieurs sons l'un à l'autre, ainsi que le fait la Musique,

that it is simply a theoretical construction that bears little consequences for audition (Carl Dahlhaus, *Studies on the Origins of Harmonic Tonality*, trans. Robert O. Gjerdingen (Princeton: Princeton University Press, 1990), 28–30). In either case, *sous-entendu* allows Rameau to perceive – in some cases acoustically, in others conceptually – a governing fundamental bass to be 'heard-understood' below a melody or *basse continue*.

[73] For more on how the fundamental bass informs melodic progressions instinctually see Cohen, 'The "Gift of Nature"', 76–77.

[74] See again Dill, 'The Influence of Linguistics on Rameau's Theory of Modulation'. For a broader perspective see also Keiler, 'Music as Metalanguage'.

[75] Chabanon, *Éloge de M. Rameau*, 46.

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> leur progression lente ou rapide, uniforme ou variée, leur donnera un caractère, & les rendra susceptibles d'être assimilés à d'autres objets.[76]
>
> Any sensation produced by an object without movement can hardly be imitative; it can have no conformity with our actions, our customs, or our characters. Just try to conceive of a sound in your ear and continue to sustain it; this lifeless and inactive sensation will depict nothing to the mind. On the contrary, make several sounds follow one another, as music does, and their slow or fast, uniform or varied progression gives them a character and renders them susceptible of being assimilated to other objects.

This rejection of individual 'sound symbolism' (to borrow from Claude Lévi-Strauss's estimation of Chabanon's writings) gives rise to Chabanon's rebuke of musical imitation.[77] Any sound merely represents itself, for 'music has no dictionary'.[78]

So, I ask again, how did eighteenth-century listeners experience emotion in and through music? Part of the answer lies within the human-harpsichord metaphor and its ability to attune (*assimiler*) music to the body's fibres. We feel a musical passage to be tender not because it mimetically represents 'the same physical and spiritual condition' we have in the case of a lover, parent or friend (all of which are different nuances of tenderness in Chabanon's view), but because 'between the two situations – the one real, the other musical – the analogy is such that the mind agrees to take one for the other' ('Mais entre ces deux situations, l'une effective, l'autre musicale . . . l'analogie est telle, que l'esprit consent à prendre l'une pour l'autre').[79] As he elaborates:

> La théorie des Arts, considérée sous ce point de vûe, devient la théorie de nos sensations les plus délicates, & de nos goûts les plus exquis. Le Philosophe qui s'en occupe interroge chaque fibre du cœur, examine le rapport qu'elles ont toutes avec nos différens organes. Il contemple notre ame correspondante avec nos sens, qui, Ministres de ses affections, lui apportent le Plaisir & la douleur. Il réfléchit sur chacun de ces sens, qui, séparé des autres, isolé dans son poste, & n'ayant en apparence aucun moyen de communiquer avec eux, y communique cependant par la médiation de l'ame . . . C'est ainsi, (me pardonnera-t-on une comparaison si peu élevée?) c'est ainsi que l'araignée, placée au centre de sa toile, correspond avec tous les fils, vit, en quelque sorte, dans chacun d'eux, & pourroit . . . transmettre a l'un, la perception que l'autre lui auroit donnée.[80]

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[76] Chabanon, *De la Musique considérée en elle-même*, 54. See also Chabanon, *Observations sur la Musique*, 31. Cited in Waeber, 'Déconstruire Rousseau', 278. Chabanon presents this passage first as his own in his *Observations sur la Musique*, only to attribute it to Aristotle in *De la Musique considérée en elle-même*. Incidentally, in the intervening six years between the *Observations sur la Musique* and *De la Musique considérée en elle-même*, Chabanon published a translation with commentary of Aristotle's problems concerning music. Michel-Paul Guy de Chabanon, 'Mémoires sur les Problèmes d'Aristote concernant la Musique, traduits et commentés par M. de Chabanon', *Mémoires de l'Académie des Inscriptions* 46 (1780–1783), 285–355.

[77] Claude Lévi-Strauss, *Look, Listen, Read*, trans. Brian C. J. Singer (New York: Basic Books, 1997), 97–102.

[78] Lévi-Strauss, *Look, Listen, Read*, 98.

[79] Chabanon, *De la Musique considérée en elle-même*, 105.

[80] Chabanon, *De la Musique considérée en elle-même*, 354–355. Images of the spider and its web were common in the Enlightenment. Chevalier Louis de Jaucourt, the most illustrious of Encyclopaedists (he wrote 17,266, or roughly twenty-four percent, of the more than 70,000 articles in the *Encyclopédie*), describes them in relation to nervous tension in the article 'Tarentule (*Histoire naturelle*)', in *Encyclopédie*, volume 15, 905–908. Diderot, too, uses the spider and its web as a suffusing metaphor in his writings. He uses them, for instance, to explicate a broader theory of resonance and interconnectedness in the second dialogue between Bordeu, Mademoiselle de l'Espinasse and the sleeping but still verbal d'Alembert in *Le rêve de d'Alembert* (*c*1769). For a fuller account of spiders' and spider web's roles in eighteenth-century music, science, medicine and philosophy see Erlmann, *Reason and Resonance*, 133–138; Ilie, *The Age of Minerva*, volume 2, 142–161; and Alain Cernuschi, *Penser la musique dans l'‘Encyclopédie’: étude sur les enjeux de la musicographie des Lumières et sur ses liens avec l'encyclopédisme* (Paris: Champion, 2000), 167–220.

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> Considered from this point of view the theory of the arts becomes the theory of our most delicate sensations and our most refined tastes. The philosopher who occupies himself with [this theory] questions each fibre of the heart and examines the relationship that they all have with our different organs. He contemplates that our soul communicates with our sensations, which, as ministers of its affections, furnish the soul with pleasure and sadness. The soul reflects on each of these senses, which, separated from the others, are isolated and have no apparent means of communicating with them. Nevertheless, each sense communicates through the mediation of the soul . . . It is as (will I be pardoned a less elevated comparison?) – it is the same as the spider that, located in the centre of its web, corresponds with all of its threads, and, to some degree, living in each of them, would be able . . . to transmit to one the perception that another would have given it.

Chabanon stresses instead a semiotics of association based upon indirect sensation. A musical sound tacitly transfers its reverberations to another internal yet unsounding sensitive fibre. The soul, located in a cluster of nerves in the middle of the autonomic system, mediates the transformation of musical sensation into bodily sentiment through its affective, analogical agency.[81]

'L'analogie' – or what we today might call 'association' – displaces the older mimetic processes by way of music's sympathetic relationship with the listener. As a manifestation of the human-harpsichord trope, this network of string-like fibres becomes the mechanism by which the body relates (*assimile*) sounds to particular affective states. To Chabanon, music is first and foremost a sonic phenomenon that must be understood by the physical medium of sound vibration and its subsequent effect on the sympathetic parts of the body. The body, after all, is only an instrument, one that receives tones through its *sensible* fibres. We hear musical tones and then, at a secondary but immediate stage, relate those tones to a passionate response, one internalized through the very act of listening. Music thus is defined by and through this material reality, the 'thing itself': 'What is music?', he asks. 'The art of sounds. Here we examine the individual properties of sounds, the cold, lifeless materials that this art animates and vivifies. By what means does it give them this existence, whence results a pleasure so lively and touching for our senses?' ('Qu'est-ce que la Musique? L'art des sons. Ici nous examinons les propriétés individuelles des sons, élémens premiers de l'art Musical, matériaux froids & sans vie, que cet art anime, & qu'il vivifie. Par quels proceeds leur donne-t-il cette existence, d'où il résulte pour nos sens un plaisir si vif & si touchant?')[82] The embodiment of musical phenomena is the musical experience itself. The musical body comes to life.

The Aesthetics of Self-Reflexivity

Let us return to Rameau's *Pigmalion*. The composer was no doubt pleased with his self-conscious scoring of the *corps sonore*, proudly referring to its effect in his theoretical writings. One instance occurs in the *Démonstration du principe de l'harmonie* (1750):

> La proportion harmonique donne la plus parfait harmonie qu'on puisse entendre, son effet est admirable, quand on sçait la disposer dans l'ordre qu'indique la nature . . . après l'avoir employée souvent sans succès, j'ai eû le bonheur de rencontrer à peu près tout ce qu'il falloit dans le chœur

[81] Compare Diderot, *Entretien entre d'Alembert et Diderot*, in *Œuvres*, volume 1, 616–621. See also Catherine Dubeau, 'Corps et musique chez Michel-Paul Guy de Chabanon: sensation, énergie, sublime', in *Représentations du corps sous l'ancien regime*, ed. Isabelle Billaud and Marie-Catherine Laperrière (Laval: Presses de l'Université Laval, 2007), 241–263. Again, since *La rêve de d'Alembert* went unpublished during Chabanon's lifetime, it is difficult to say if he knew of Diderot's specific usage. In all likelihood, Chabanon drew much of his influence with regard to webs and spiders from the broader Enlightenment trope, especially as it appears in Georges-Louis Leclerc, comte de Buffon, whose experiments with music and spiders Chabanon cites and recreates in *De la Musique considérée en elle-même*, 40–45.

[82] Chabanon, *De la Musique considérée en elle-même*, 1–2.

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> de l'Acte de Pigmalion, que j'ai donné l'Automne de 1748, où Pigmalion chante avec le chœur l'*Amour triomphe*. Et même encore dans la fin de l'Ouverture de ce même Acte.[83]

> The harmonic proportion [of the *corps sonore*] gives the most perfect harmony that could be heard. Its effect is admirable when a composer knows how to place it in the order that nature indicates . . . After having used it often without success, I have had the good fortune [of using it] when Pigmalion sings with the chorus 'L'Amour triomphe' from the *acte de ballet Pigmalion*, which I presented in the autumn of 1748. And even more so at the end of the overture of the same work.

These two moments are noteworthy, Rameau claims, because they adhere to the exact harmonic proportions of their respective *corps sonores*.[84] 'L'Amour triomphe' from the fifth scene reinforces the central theme of the work – love's power to animate – through its own sonic representation of the *corps sonore*, which forges an intertextual link with the statue's transformation in Scene 3.[85] The final sentence of this passage, though, lands in a place with no possible textual allusion, pointing out the *corps sonore* at the end of the overture. Looking to the score provided in Example 2, the *corps sonore* (marked *b* in bar 70) emerges from a first-inversion triad at the beginning of the phrase (marked *a* in bar 65). And in case the audience missed it, Rameau emphasizes this moment by abruptly stopping the undulating semiquavers – except for the upper voices' ornamentation of the *sons harmoniques* – which at last announces the *corps sonore* for all to hear (marked *c* in bar 72). Notably, this is the most drastic texture change in the reprise.

We have encountered this moment before. At the outset of this article, I noted how Chabanon describes his own transformation, not by Cupid's flame, but by a flash of lightning and claps of thunder – in other words, the *corps sonore* 'at the *fortissimo* of the reprise'. By attending to the emergence of *corps sonore* at the end of the overture, Chabanon is alerting his reader to its effect on him. Indeed, one would not be hard pressed to hear Chabanon's 'what is music?' as intoning Pigmalion's 'what are these harmonious sounds?'; nor would it be a stretch to interpret Chabanon's enquiry into the music's animating effects as being a rephrasing of the sculpture's survey of her movements. When the cold marble statue comes to life later in the *acte de ballet*, it is because of the reverberation of the *corps sonore*. The music, through its sympathy, renders the lifeless sculpture foreign to what it once was, transfiguring the statue at will from a body to a musical body, and into enlightened harmony.

That said, the metaphor of transformation-as-becoming so central to the Pigmalion myth bears a resemblance to another familiar tale: Condillac's *Traité des sensations*. As discussed above, Condillac sought to reimagine his fictitious statue as the enlightened *sensible* subject, one who attains her own form of prosopopoeia and thus her personhood. Throughout the treatise, the statue's sensations endow it with only crude recognition of its objects. Condillac thus accounts for the statue and brings it into being through its own experiences. When it hears music, for instance, the sculpture experiences itself as being music. Eventually, through a combination of sensations, the statue develops more complex forms of cognition like judgment, memory and imagination (among others). These initial experiences apply solely to what occurs outside the statue's marble exterior, leaving it without proper knowledge of its body. To achieve this awareness, Condillac permits his creation the sense of touch. Upon caressing its marble flesh, the statue responds immediately 'it's me' ('c'est moi'). The statue touches other parts of its body: 'c'est moi, c'est encore moi'.[86] This dramatic moment of self-reflexivity arises from feeling its own experiences, from sensing its body's place

[83] Jean-Philippe Rameau, *Démonstration du principe de l'harmonie, servant de base à tout l'art musical théorique et pratique* (Paris: Durand, Tissot, 1750), 28–29; *CTW*, volume 3, 181.

[84] This is not to say *Pigmalion* is the only instance of the *corps sonore* in a compositional context. As a matter of fact, sonic representations of the *corps sonore* are riddled throughout Rameau's operas. See Burgess, 'Enlightening Harmonies'.

[85] For a discussion of 'L'Amour triomphe' in relation to the statue's animation see Christensen, *Rameau and Musical Thought in the Enlightenment*, 228–231.

[86] Condillac, *Traité des sensations*, volume 1, 224. Quoted in Bradley M. Spiers, 'Music and the Spectacle of Artificial Life' (PhD dissertation, University of Chicago, 2020), 87. This moment in Condillac informs the moment of animation in

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Example 2. Rameau, Overture, *Pigmalion*, bars 65–78, transcription Stephen Kovaciny

within its sensory landscape. Unlike the other senses, which at first only transform the statue into what it is experiencing, touch grants the sculpture an instantaneous realization of subjectivity.[87]

Rousseau's *Pygmalion* (1770), which is explored in Hyer, 'Sighing Branches', 40, and Spiers, 'Music and the Spectacle of Artificial Life', 88–90.

[87] Daniel Leonard, 'Condillac's Animated Statue and the Art of Philosophizing: Aesthetic Experience in the *Traité des sensations*', *Dalhousie Review* 82/3 (2002), 504–506.

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c

Example 2. *continued*

The theatricality of self-awareness central to the *Traité des sensations* provides a powerful allegory for Chabanon's emergent aural subjectivity. But given the nature of Chabanon's anecdote, and the fact that it appears in a eulogy for Rameau, I would be remiss not to draw from the composer–theorist himself, who provides a similar parable in the *Démonstration du principe de l'harmonie*. After placing himself into a state of musical innocence and naivety, Rameau recounts his own transformation:

> Je me mis à regarder autour de moi, & à chercher dans la nature, ce que je ne pouvois tirer de mon propre fond, ni aussi nettement, ni aussi sûrement que je le désirois. Ma recherche ne fut pas longue. Le premier son qui frappa mon oreille fut un trait de Lumiere. Je m'apperçus tout d'une coup qu'il n'étoit pas un, ou que l'impression qu'il faisoit sur moi étoit composée.[88]
>
> I began to look around me and search in nature for what I could not draw from myself, neither as clearly nor as surely as I would have desired. My search was not long. The first sound that struck my ear was like a flash of light. I suddenly perceived that it was not one [single sound] but that the impression it made on me was composed [of several sounds].

Rameau's sudden realization that sounds are compound in nature proclaims awareness of his changing sensibilities. It is in this moment that he perceives the critical distinction between noise and sound, and implicitly transforms ignorance into knowledge: 'voilà', he says to himself, 'there is the difference between noise and sound' ('voilà, me dis-je sur le champ, la différence du *bruit* &

[88] Rameau, *Démonstration du principe de l'harmonie*, 11–12; *CTW*, volume 3, 172.

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du *son*').[89] But while Rameau experiences the flash of light, no thunder follows. Instead, we must wait fourteen years to get such satisfaction. Chabanon was also struck, both by the metaphorical bolt of lightning and his sudden realization, perceiving not the difference, but the relationship between the storm and the music. As if in the same state of musical innocence, he ends his story: 'that which [Rameau] had conceived as a brilliant *symphonie* had become for us, by chance, a *tableau*.'[90]

To re-enact the aesthetic passage from noise to sound is to entwine Rameau's story with his own. As if struck by the same *trait de lumière*, Chabanon hears the music as if for the first time and realizes something that was not there before: the music itself in all its purity as the *corps sonore*. The experience clearly had a profound effect on Chabanon – so profound, in fact, that he reiterates this anecdote again and again in his writings. The story appears both in the *Observations sur la musique* in 1779 and in *De la Musique considérée en elle-même* in 1785, though without a direct reference to the flash of lightning. The thunder as well as the point of the story nevertheless remain.[91] This amendment notwithstanding, the allegory's refrain-like appearances (to say nothing of Chabanon's several other references to the *acte de ballet*) attest to its importance. And after reliving it for a third time, he concludes with an emphatic plea to his readers: 'Artist musicians, who reflect upon the practices of your art, does this example teach you nothing?' ('Artistes Musiciens, qui réfléchissez sur votre Art, cet exemple ne vous apprend-t-il rien?').[92]

Rameau's Statue

The questions we ask influence the answers we find. How we go about addressing them also matters. Supposing this reconstruction of Chabanon's version of the myth is correct, then what did he believe this example was teaching? Far from writing his question off as mere rhetorical flourish, a punchy and provoking way to conclude a serendipitous meeting between man and music, I think it only fair to take him at his word. We know now that his story serves to probe commonly held beliefs about music's role in aesthetic theory – namely, to challenge the dictum that music is an imitation of nature. We also know, through his broader use of analogy, that a piece of music and a natural event such as a storm need but a weak resemblance for one to portray the other. Because of their shared resonance, the *corps sonore* and the rumbling heavens are one and the same despite authorial intent. Rameau, after all, did not intend to depict a tempest. The rapid bowing of the strings instead forms the sound of hammer and chisel as it comes into contact with stone. Or so we are led to believe when the curtain rises to reveal Pigmalion gazing at his finished statue. Remember that the music, although important to the arc of Chabanon's narrative, is not his primary focus, nor is even the storm. Rather, it is the *aesthetic perception* of these features that seizes his attention. It is only after the thunder disperses that the music re-enters the frame. Beguiled by this experience, Chabanon remembers the very instant the music enthralled his sensorium, hearing in the music a change from a mere instrumental overture to something more: 'You have seen that the overture to *Pigmalion* heard during a storm became, as a result, the storm's very portrayal. This example dispenses with the need of citing others' ('Vous avez vu que l'ouverture de Pygmalion, entendue au moment d'un orage, en étoit devenue la peinture parlante. Cet exemple dispense d'en citer d'autres').[93]

Thus, in the end, this has less to do with the music in question than it does the question *of* music. The rehearsal of circumstances underlying this encounter signifies something far more encompassing than a particular overture and a coincidental storm. The reference to this moment in the music,

[89] Rameau, *Démonstration du principe de l'harmonie*, 12; *CTW*, volume 3, 172.
[90] Chabanon, *Éloge de M. Rameau*, 30.
[91] Compare Chabanon, *Observations sur la Musique*, 40, and *De la Musique considérée en elle-même*, 59–60.
[92] Chabanon, *De la Musique considérée en elle-même*, 60.
[93] Chabanon, *De la Musique considérée en elle-même*, 154; Chabanon, *Observations sur la Musique*, 128–129.

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while provocative, serves to alert the reader to a deeper proposition, to a definitive moment, that Chabanon is mirroring in his account. Chabanon contends that music articulates its own aesthetic, one that necessitates a theory of bodily experience as distinct from the other arts – hence the title of his treatise, *De la Musique considérée en elle-même*, 'of music considered on its own terms'.[94] In establishing an aesthetics of music based upon the shared materiality of sound and body, Chabanon realizes the full implications of the music itself, treating Rameau's music theory as a manifestation of music's aesthetic autonomy. After all, Rameau's music theory 'is to harmony', Castel famously declared, 'what the human face is to man' ('La basse fondamentale est dans l'harmonie, ce qu'est le visage dans l'homme').[95] Or, as Chabanon puts it: 'one, like Pigmalion, models the statue; the other, like Cupid, touches it and makes it speak' ('L'un, comme Pygmalion [*sic*], modèle la Statue; l'autre, comme l'Amour, la touche & la fait parler').[96] Music and its aesthetic are modelled from the same material, chiselled, as it were, from the same piece of stone, and granted the same voice. Through this rhetorical prosopopoeia – that is to say, endowing the music itself with name, face and voice – Chabanon ultimately comes to recognize his *own* voice in the music, an *inner* voice, that he believes allows the music to ask questions of us.[97]

But to hear this as Chabanon's only locution would be to miss the larger point. Granting a voice to the statue in the *acte de ballet*, and thus to music in general, implies the subject(s) to whom music constitutes a voice. After all, eighteenth-century animated statues – those that move, speak, hear and sing – signify the collective self, the several musical persons attending an outdoor concert; indeed, they suggest an 'us'.[98] To Chabanon, living in each of us is a passive and mutely responsive *corps sonore* waiting to be plucked, to be envoiced by the music – perhaps even prompting us to say 'c'est moi'. In his newly acquired aesthetic form, Chabanon becomes the mouthpiece of a new aesthetics of music. Although the storm was circumstantial, the purpose of the tale is not. Chabanon is careful to choose this overture and this moment; he is mindful to reflect Rameau's language, and to articulate his point through the audience's shared auditory response to the sounding body. It is through the transformation from sensation to sentiment, from *symphonie* to *tableau*, and from 'sounding body' to 'listening self', that Chabanon becomes *Rameau*'s statue. Chabanon himself transforms. And to read Chabanon's story in this light not only transforms how we might interpret his texts, but also adds to our understanding of the animated statue as a figure of eighteenth-century thought, and, perhaps most importantly, as an allegory for music and how we experience it.

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[94] We would not be incorrect in imputing Hanslickian resonances here. Chabanon's *Observations sur la Musique* was translated by Johann Adam Hiller as *Ueber die Musik und deren Wirkungen* (Leipzig: Friedrich Gotthold Jacobder und Sohn, 1781), making Chabanon's ideas accessible to readers of German. This point was not lost on Mathis Lussy, who published an article comparing individual passages between Chabanon's *Observations sur la Musique* and Hanslick's *Vom Musikalisch-Schönen* (1854), although he uses Charles Bannelier's French translation. See Matthis Lussy, 'Chabanon précurseur de Hanslick', *Gazette musicale de la Suisse Romande* 3 (1896), 95–98.

[95] Louis-Bertrand Castel, review of Jean-Philippe Rameau, *Traité de l'harmonie reduite à ses principes naturels*, *Mémoires pour l'histoire des sciences & des beaux arts* (November 1722), 1892.

[96] Chabanon, *De la Musique considérée en elle-même*, 172.

[97] Hyer, 'Sighing Branches', 41–42, and Carolyn Abbate, *Unsung Voices: Opera and Musical Narrative in the Nineteenth Century* (Princeton: Princeton University Press, 1991). One cannot help but think of Nicolas-Étienne Framery's famous assertion about the opera orchestra: 'the voice utters the thoughts of the dramatic character while the orchestra indicates those that are left unsaid. It is, so to speak, its *inner voice*' ('La voix rend les pensées qui échappent au personage dramatique; la symphonie indique celles qu'il ne dit pas; elle est, pour ainsi dire, son organe intérieure'). 'Accompagnement figure', in Nicolas-Étienne Framery, Jérôme-Joseph de Momigny and Pierre-Louis Ginguené, eds, *Encyclopédie méthodique: Musique*, two volumes (Paris: Panckoucke, 1791), volume 1, 19 (my italics).

[98] Gross, *The Dream of the Moving Statue*, xi.

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