

Refiguring the Early Modern Voice

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In 1672 audiences at the Académie royale de musique in Paris witnessed a rather unusual spectacle: *Les peines et les plaisirs de l'amour*, a “pastorale” composed by Robert Cambert. A blend of ballet, spoken dialogue, and song, Cambert’s work in five acts is widely considered a forerunner of French opera. Although little of it survives beyond the libretto and the music of the prologue and first act, the event inspired one spectator to comment on the audience’s response.¹ Titled “Sçavoir si la musique à plusieurs parties a esté connüe et mise en usage par les Anciens” (Whether part music was known to and used by the ancients), the text relates a dispute between two spectators at the start of the performance of Cambert’s “pastorale.” At first the disputants, Paleologue (Expert on Things Ancient) and Philalethe (Lover of Truth), quarrel over the value of the novel type of spectacle. Philalethe, who had been present at the work’s premiere, is utterly ravished. Showing no interest in the author and composer of the piece, much less in finding out about the designer of the stage machinery, his only concern is “to know how someone was able to produce such surprising things.” Paleologue, meanwhile, declares that the only thing he is amazed about is how people who have seen Italian opera in Venice can “admire so little.” But as the curtain rises and the violins begin to intone the overture, something unexpected happens. Unlike the raucous spectators around them, who continue with their

conversations and care only about the names of the female singers, the two antagonists suddenly find themselves transfixed by the interplay between different voices and the accompaniment of instruments, the “symphonie.” Even the obstinate Paleologue becomes more “docile,” listening with “less contempt” than he did at the start of their conversation.²

The eavesdropping spectator and author of “Sçavoir” is Claude Perrault (1613–88), one of France’s most prominent intellectuals during the Sun King’s reign. Brother of the celebrated author of fairy tales, Charles Perrault, and of the pioneer of modern hydrology, Pierre Perrault, Claude Perrault was the archetypal representative of what Stephen Jay Gould, in a sympathetic portrayal of the Perrault brothers, calls the “modern liberty to move on.”³ And indeed, Perrault’s activities encompassed a stupendous range of ground-breaking scientific and artistic fields. A physician by training, he conducted extensive zoological studies, “compiled” the first volume of the pioneering *Mémoires pour servir à l’histoire naturelle des animaux* (1671/1676), and became a founding member of the Académie royale des sciences. But Perrault also designed the observatory, translated the work of the ancient Roman architect Vitruvius into French, and authored the widely read essay *Ordonnance des cinq espèces de colonnes selon la méthode des anciens* (*Ordonnance for the Five Kinds of Columns after the Methods of the Ancients*, 1683), widely considered one of the founding texts of modern architecture.⁴

Perrault’s real passion, however, was the ear. It was in a book on sound and the ear that he laid the foundation of what may well be his legacy as a leading figure of the late-seventeenth-century scientific and philosophical avant-garde. Titled *Du bruit* (*Of Sound*) and published in 1680 as part of the second volume of his *Essais de physique*, the book is the first serious attack on the Cartesian model of the machine-body, arguing that the animal body is a self-generating organism.⁵ But in intermingling architecture, opera, and otology, Perrault in *Du bruit* also furnished a scientific rationale for the aesthetic relativism that was beginning to shape contemporary debates about the modern. A long-overdue rereading of Perrault’s “Sçavoir” and *Du bruit* is thus helpful in revisiting some of the more expedient constructions of early modern vocality.⁶

One such construction, for instance, is the notion that the era witnessed the triumph of a new nexus between music, the ear, and a modern form of subjectivity based on the Cartesian ego's representative powers.⁷ In one of the most thought-provoking engagements of early modern opera to date, Gary Tomlinson, for instance, refutes the tendency to reduce seventeenth-century musical aesthetics to *Affektenlehre*, or "doctrine of affections."⁸ Instead, Tomlinson detects in the vocality pioneered in Lully's operas a new type of metaphysics. The recitative, perhaps Lully's most momentous accomplishment, he argues, not only became a source of expressive power but also created new "conditions of subjectivity" (*MS*, 48). Faced with the disintegration of the Renaissance *episteme*, Lully struggled to regain some measure of semiotic predictability by means of musical stock formulas, standardized personae, and a whole arsenal of dramatic conventions, signs, similes, and chimeras. The fruit of his labors, the *tragédie en musique*, conjoined music and words in order to achieve a new unity of mind and body constituted through the fixity of representation or, as Tomlinson puts it, "habituation."

A similar account of Cartesianism's relationship with early modern aurality is offered by Georgia Cowart in *The Triumph of Pleasure: Louis XIV and the Politics of Spectacle*.⁹ Focusing on the opera-ballet and comedy-ballet of the latter half of the seventeenth century, Cowart is concerned with the pivotal—and increasingly counterhegemonic—role pleasure was beginning to play in the spectacles staged by and for Louis XIV. While during the early part of the monarch's long reign elite audiences were expected to identify with and submit to the heroic images of absolute power projected by the court ballet, from midcentury strains of resistance began to emerge. Audiences insisted on indulging in the sonic and visual delights afforded by these spectacles on terms of their own choosing, preferring a more egalitarian, everyday kind of libertinism over the martial manifestations of royal might. In short, as Cowart compellingly shows, early modern spectacle could be said to be one of the terrains on which the "modern liberty to move on" began to assert itself.

Neither Tomlinson nor Cowart questions the larger Cartesian

framework, though. Thus, Tomlinson's adumbration of the Lullian recitative as "habituation" may well open up a space for envisaging a new, albeit somewhat passive type of listener. But at the same time, the aural sovereignty achieved through such "habituation" remains firmly anchored in Descartes' mind-body dualism. Cowart, similarly, sees the weakening of the quasi-mystical correspondence between king and state power during Louis XIV's final years and the potentially unruly kind of auralty increasingly being espoused by upper-class audiences as mediated by the rise of Cartesian mechanism (*TP*, 162). And as in Tomlinson's account, the new alliance of pleasure and liberty for her manifests itself first and foremost within the space of representation—in plots and allegorical figures but much less so at the level of bodily sensation.

But it is precisely here, in the concept of an auralty operating outside the parameters of the Cartesian mind-body dualism, that lies the core of Perrault's "modern liberty." Contrary to the notion that the groundswell of dissent and anti-aristocratic sentiment and the rise of alternative, "proto-Enlightenment" visions of leadership and society were fueled by the growing acceptance and aesthetic relevance of Cartesianism, Perrault's position was a more ambiguous one (*TP*, 172). Perrault's pursuit of "modern liberty" begins elsewhere. It begins at the point of intersection where the rational and the marvelous—both touchstones of early modern science and art—converge in the act of listening to the operatic voice.¹⁰

"Le merveilleux"—Affect and Immersion

Perrault continues:

[Paleologue] even entered, in a way, into its "feelings" [il entra mesme en quelque façon dans ses sentimens] when the piece was finished and they remained in their place a little longer while the crowd dispersed. He drew his [Philalete's] attention to all the things that made the piece that has been played so marvelous [merueilleuse] and so much superior to the spectacles of the ancient in terms of intellect [esprit] and ingenuity [invention]. ("PM," 586–87)

But what are all those marvelous things? They consist, Paleologue goes on to elaborate, in a “shrewd economy” (“œconomie iudicieuse”),

in the clever way in which the composer introduced ballet episodes and machinery that are “necessary” to the topic at hand; the variety of characters represented by the different roles that provide an opportunity to broach both happy and sad subjects; the use of two familiar genres of song like the drinking song and the love song; the way the plot of the fable, with its intrigues, is made comprehensible by the concatenation [enchainement] of songs that ordinarily must also contain propositions of a general nature; the abstention from the recitative, which is devoid of charm [grace] when sung; the technique of having sing together several characters who are in conversation; and, finally, to have all this go on for three hours without being boring and notwithstanding the inconvenience all music, no matter how good, becomes subject to when it becomes insufferable because of its long duration. (“PM,” 586–87)

At first glance, the passage reads like a laundry list of all the things early modern audiences found to be either remarkable or objectionable in the marvelous effects, *le merveilleux*, so central to the new form of spectacle. But the passage is also interesting because it wrestles with some of the potentially more troubling implications of the marvelous for the nascent project of an off-Cartesian theory of voice, hearing, and subjectivity. At stake in this brief text is nothing less than the irrational side of the “animated” body.

One phrase, in particular, should give us pause: “he even entered, in a way, into its ‘feelings.’” It is grammatically and semantically ambiguous. For instance, it is not entirely clear whether *ses* refers to Philaete’s feelings, which Paleologue had earlier sought to resist, or whether, by contrast, the possessive pronoun points to the remainder of the sentence, “when the piece was finished and they remained in their place a little longer while the crowd dispersed,” and hence to the “piece” itself.

Equally if not more ambiguous is the word *sentimens*. What is the space of emotion in early modern opera? What exactly was the

meaning of sentiments during the middle of the seventeenth century, and what was their relationship to other orders? And finally, what did Perrault mean by the phrase “he entered”? To understand this brief remark, it is helpful to take a brief look at the plot of *Les peines*. The prologue has the Muses order Apollo to follow the rule of the steely Jupiter and to abandon love. Apollo, however, refusing to obey Jupiter, casts his lot with the Graces, asserting love’s supreme power to transform pain into pleasure. This course of action in turn enrages the Muses, who denigrate Cupid and castigate the fruits of love as pains, only to see the ultimate defeat of the Muses and the triumph of love.

Of course, the *sentimens* the disbelieving Paleologue eventually “enters into,” as would be expected of a pastorale, is the ultimate triumph of love, of pleasure over pain. But there is a subplot that adds an altogether more defiant tone to *Les peines*. In aligning the Muses with Jupiter’s, read: Louis XIV’s ruthless rule, the work invokes, much like Molière and Lully’s *Le bourgeois gentilhomme* produced two years earlier, the “metaphor of the transformation of pain into pleasure as the means by which a utopia of spectacle could serve as the model for a new society” (*TP*, 121).

Equally helpful in understanding Paleologue’s immersive moment might be to revisit some of the older scholarship of the “marvelous.” In the literature on French early modern opera, the marvelous has largely been framed in terms of its relationship to the precepts of “classical” theater. While in the spoken tragedy—Racine’s *Phèdre* (1677), for instance—the supersensible realm is banned from the stage, opera thrives on presenting a world filled with supernatural characters, magic moments, and scene changes, all made possible by intricate machinery and music. In fact, in the eyes of many “enlightened” commentators *le merveilleux* was tolerable only because the music of the lyrical theater neutralized it. In the *tragédie en musique*, the eighteenth-century encyclopedist Jean-François Marmontel wrote, for instance, “everything is false, but everything is in agreement; and it is this agreement that constitutes truth. Music gives charm to the marvelous, the marvelous in turn gives credibility [vraisemblance] to music.”¹¹

Yet spoken tragedy and opera are also united by a more hidden

link, beyond the obvious opposition between what is not shown and, hence, exterior to the text, in the tragedy, and what is recovered and integrated into the text, in the case of opera. There is, in fact, a “familiar strangeness” between the two genres, as Catherine Kintzler, the foremost authority on French scenic aesthetics of the classical era, writes: “Opera treats the exteriority of the theater as though it was not exterior.” It does so “by not only integrating this exteriority into the plot, but above all by bringing the poetic rules of the classical drama to bear on it, by treating this exteriority as a theatrical element in its own right.”¹²

Exteriority is not merely exhibited, then, but truly repatriated and interiorized at the heart of the theater. In this way, exteriority narrows the gulf between opera and theater by bringing, in a perverted manner, what “should distance opera from theater in principle . . . closer to it” (*TO*, 11). The key to this coexistence of the two genres within the same aesthetic frame, and thus also the guarantee for the effect of the marvelous to succeed, is verisimilitude, *vraisemblance*. The supernatural events must be plausible. They must refer to a quasi-nature, one that, if it is not accessible to the senses of ordinary mortals, at least might be possible if only one had access to it. Thus, when a supernatural being performs a magic act, this act becomes plausible only when it is part of some sort of intermediary chain of then “known” natural causes: the appearance or disappearance of a god can be accompanied only by an earthquake, a thunderstorm, or a meteor; the murder of Sanga-ride in Lully’s opera *Atys* (1676) occurs in a moment of dementia brought about by the fury Alecton; and so forth.

Verisimilitude also depended on a subtle interplay between illusion and reality, distance and immersion. On the one hand, the assumption that the realm of the supersensible in the *tragédie en musique* is plausible depends on a separation of this world from the ordinary world of the spectator. Nature as the ultimate reference point of poetic representation is present, but only as a nature whose probability is mediated by the marvelous. The typical audience response corresponding to this distanced stance, typified in part by Philaete’s interest in the “surprising” effects of *Les peines*, is thus one in which the object of wonder and the concomitant de-

sire for rational mastery of this object are less about the marvelous itself than about the ambiguous relationship between the rational and the irrational—“How did they do this?”

Conversely, the principle of verisimilitude functions only when the suspicion that the communication between separate realms is the result of artifice is at least temporarily suspended. Only when the process of mediation between the ordinary and the marvelous is somehow naturalized can early modern opera work its magic. Contemporaries of the *tragédie en musique* commented at length on verisimilitude’s ability to produce an enchanting effect on the audience, but as a rule failed to dwell on the specific musical qualities of this enchantment. Yet it is precisely here, in the physical linkages between sound and the body, that for a present-day observer such as Kintzler, music’s genuine role and indeed necessity for the lyrical theater resides. More than a mere mode of expression proper to mythical characters such as Orpheus or the Sirens, music constitutes the very element in and through which deities, demons, and inspired poets act. But, she cautions, the way music imparts this sense of the ordinary extraordinary to the audience is not by some mysterious spiritual or purely psychological force, but by virtue of it being a “natural (and, hence, probable) *sounding box* for a number of passions or situations being dealt with in the work. . . . Music finds itself in mechanical conformity with those passions as a result of the ‘sympathetic transmission of vibrations.’”¹³

A similar interaction of verisimilitude and the marvelous underpins opera’s instrumental sounds. Such music, Kintzler suggests, must be understood as an excerpt or approximation of nature—not nature as it appears in its teeming variety, but as it truly is. It is through this principle of truth to nature (itself a key concept of early modern science), by concentrating on what is essential about the sounds of nature—the “rolling” of thunder rendered in a drum roll, the flash of lightning imitated in a single stroke of the tympani, the running brook made audible in the rapid runs of the woodwinds, and so on—that music transforms the ordinary and physical into the true. At the same time, however, this passage from noise to musical sound, this poetization of noise not only fiction-

alizes reality, it is itself fundamentally fictional, drawing the audience into the simultaneously real and fantastic realm of the sounds heard in opera (*PO*, 303–5).

Kintzler's adumbration of the *tragédie en musique* is a powerful one, no doubt. Yet it also unduly homogenizes what has been an uncertain period of experiment stretching over several decades into a coherent phase of early modern opera. The term "sounding box" (*caisse de résonance*) may well capture Jean-Philippe Rameau's doctrine, expounded with great persuasion in his *Génération harmonique* (1737), that "our instinct for harmony" derives from the fact that the ear perceives pitch on the basis of the sympathetic resonance of the basilar membrane.¹⁴ But it does not do justice to the ambiguous fascination the marvelous exerted on earlier opera audiences, as is exemplified by Paleologue's magic transformation as he "enters" into the *sentimens* of Cambert's *Les peines*. To be sure, Perrault's main objective in "Sçavoir" was to grant "modern" harmony superiority over ancient Greek monophonic music and to ground nascent French opera's legitimacy vis-à-vis the classical drama in the claim that not only had there to be a space for dealing with *le merveilleux*, but that opera was that space. Yet at the same time, harmony's effects differ from the simple cause-effect relationship underpinning ancient music, as he saw it, because it is predicated on a richer sense of multiply crisscrossing correlations between subject and object.

And thus the affective communion with music's *sentimens* generated by harmony does not so much depend on the stable interchange between two vibrating systems (music and the ears) guaranteed by the laws of nature as on a coming-to, or better still, a remaining-in sound. The ideal listening stance that Perrault seems to impute to his two opera lovers is not one based on a fixed vantage point vis-à-vis an object mechanically transmitted via sympathetic resonance. Nor, in fact, are these listeners asked, as later audiences during the early eighteenth century were, to engage with the theatrical figures emotionally, through mimetic mirroring. Rather, Philaete and Paleologue's preoccupation with the marvelous can be described as involving what one might call, borrowing a phrase from Kaja Silverman's work on male subjectivity, "exte-

riorizing” identification.¹⁵ These spectators’ theatrical experience always teetered on the brink of ecstasy, even madness, involving a delirious form of listening, a veritable *folie de l’écoute* similar to the visual frenzy or *folie du voir* that Christine Buci-Glucksmann has located at the heart of Baroque aesthetics.¹⁶

The instability of this identificatory position, this auditory frenzy, is of course a far cry from the subordination of the senses to the mastered clarity of Cartesian representation generally held to be the sole basis of the arts in early modern culture. Instead of containing the object of representation within an optical frame—or in the case of music, within a system of stable signifiers—the early modern *folie de l’écoute* can be said to liberate its object from any frame and, in a sense, even erase the object altogether. It is in this latter sense that Buci-Glucksmann adumbrates early modern opera as akin to “Baroque poetry’s phonic multiplication of the signifier and as ruins of language, lacking any hermeneutic dimension” (*FV*, 112). And of course, this is also what Perrault’s Paleologue has in mind when he discredits the sung recitative as being devoid of charm.

Early modern opera, one might say, instead of excluding the perceiving subject from the space of representation and reducing him or her to the role of a stable, if largely passive observer, stages the act of seeing and hearing itself. Listening to the *bruit agréable* of Cambert’s pastorale embroils the ear in its own potential for the infinite expansion of the audible—as the possibility of gaining untold access to an unheard, yet eminently representable world (*FV*, 93).

The idea of the *folie de l’écoute* erasing the object of audition and the concomitant concept of a listening devoid of a subject are not meant to denote some form of personal idiosyncrasy or pathology. Rather, such objectless and subjectless perception is part of a broader logic of perception typical of the early modern period, which Gilles Deleuze, in *The Fold: Leibniz and the Baroque*, has termed “fold-in.”¹⁷ The affective content of early modern opera, Deleuze contends somewhat hazily, is not the result of a binary correspondence between text and music, which would be rather arbitrary and, one suspects, more in keeping with the Cartesian roots of *Affektenlehre*. Instead, the text is enveloped by harmony,

as though the melody of the voice is inflected by the harmonies so as to render the text's affective dimension (*TF*, 136).

From the standpoint of the listener, the Deleuzian fold-in of music and text might be construed as the attempt to oppose a more off-Cartesian notion of the subject to that of Descartes' own, all too confident subject predicated on stable patterns of signification. By wrapping themselves in a potentially endless series of folds without a content or frame, operagoers such as Paleologue and Philaethe lack any substance or coherence. Subjects such as these, obviously, do not so much perceive *from* a perspective as they "come to" or "remain in" one (*TF*, 19–20). In short, theirs is a relationship to the world that is not determined by semiotic stability but rather is mediated through a more resonant type of knowledge, or what Deleuze calls "point of view" (*TF*, 22). Losing themselves in the phantom space of *sentimens*, Perrault's spectators do not restrict their auditory experience to the sounds and the affects represented by them under the rules of *Affektenlehre*. Their hearing takes place entirely outside or parallel to the dichotomy of the subject and the phenomenal world.

The Antinomy of Resonance

One understands why listening to the marvelous might have taken audiences of early opera down a slippery path. And so the question remains how the unstable, fantastic form of early modern listening and the uncertain subject-object relationship attendant on and mediated through such listening are embedded in the empirics of the ear. What might late-seventeenth-century otological knowledge tell us about the era's attempts to fathom a less mechanical and more flexible ear-constituted subject? Here we need to turn to an aspect of seventeenth-century conceptions of hearing in which the interplay of otology, philosophy, and the project of grounding "modern liberty" in a new form of subjecthood becomes evident in all its precariousness.

Perrault's study of the ear was soon eclipsed by a work that is now considered a milestone in the history of otology and in the physiology of cochlear selective resonance in particular. Only three

years after the publication of *Du bruit*, Joseph-Guichard Duverney, a professor of anatomy at the Jardin du Roi and like Perrault a member of the Académie and a rising star on the French medical scene, had published *Traité de l'organe de l'ouïe*.¹⁸ The *lamina spiralis*, Duverney argues there, is

wider at the beginning of its first revolution than at the end of its last, where it finishes in a point, and its other parts diminishing proportionately in width, we may suppose that since the wider parts may be vibrated without the others participating in that vibration, they are capable only of slower undulations which consequently correspond to the low notes; and that on the contrary when its narrow parts are struck their undulations are faster and hence correspond to high notes, in the same way as the wider parts of a steel spring make slower undulations and correspond to low notes and the narrower parts make more frequent and faster undulations and hence correspond to high notes; so that, finally, according to the different vibrations in the spiral lamina, the spirits of the nerve, which spread through its substance, receive different impressions which in the brain represent the different appearances of pitches. (*TL*, 96–98)

Duverney's *Traité* differed from Perrault's theory in several respects. Not only was the principle of sympathetic resonance more clearly stated here than in Perrault's *Du bruit*, where the differentiation of pitch was primarily conceived as resulting from some form of cavity resonance. And, to be sure, Duverney's skills as an anatomist (as an anatomist of the inner ear, at any rate) surpassed those of Perrault. The real difference, however, between the two scientists lies in the way in which they both distanced themselves from Cartesian mechanism and in so doing supported similar concepts of listenership and subjectivity that one might call off-Cartesian. In the third section of his *Traité*, Duverney offers the first scientifically plausible theory of *tintement*, or tinnitus. This, he writes, consists of the "perception of a sound that does not exist, or of a sound that exists inside." The reason for this sensation does not lie, as the ancients believed, in some form or another of mental deficiency, but in the nature of the auditory nerve. It makes no dif-

ference whether its fibers are affected (*ébranler*) on the side of the ear or on the side of the brain: “The result will always be the same sensation” (*TL*, 206). The *tintements*, then, are “veritable sounds” that are perceived “such as they are, yet the ear is unable to relate them to an exterior object” (*TL*, 203–5).

Like Descartes, Duverney does not call into doubt the existence of an exterior “reality.” The idea of reality is still inextricably linked to the object world. But he differs from Descartes in that a sound that is “veritable” and yet “does not exist” is less a logical impossibility than the admission of a parallel interior, subjective reality. In this reality, sensations of things exist that do not necessarily fit in with the master philosopher’s pronouncement that they are illusions of the body.

How, then, did Perrault’s argument in *Du bruit* unfold? One of the major points that separated Perrault’s views from those of Descartes concerned the role of the soul. Whereas Descartes famously denied that the soul has any impact on the working of the body, Perrault believed that the relationship between the mind and the body, and more particularly between the mind and the sensory organs, could not be explained without assuming the agency of some kind of “reasoning” force in every part of the animal organism. How can the brain, Perrault wondered, handle two contrary sense impressions at the same time without getting confused? How can the rays of light that meet the eye in a straight line reach the brain undisturbed when the optic nerve itself is bent? And, finally, since nerve and sense organ must form a homogeneous whole, as they do in the retina, wouldn’t the opacity of the optic nerve obstruct the delicate vibrations being received by the transparent humors of the retina and thus hinder them from reaching the brain? The solution to these quandaries, according to Perrault, could lie only in the rejection of Descartes’ wax-seal theory of sensation. Or put differently, instead of figuring the body as a robot, a “new system” would have to assume the existence of “interior senses” that function independently of the body organs reserved for exterior sensation (*EP*, 265–66).

The reason for this hypothesis was that the soul, by virtue of being linked to all body parts, did not need the brain to ponder

(*contempler*) these impressions. It could perfectly scrutinize them in each organ, where they were present in the moment of sensation. The role of the brain, in this view, was thus a more limited one—to prepare the animal spirits necessary for the exterior senses to be properly disposed for perception. Likewise, memory was not located in the brain, as Descartes' theory of traces would have it, but in every part of the body. In short, in contrast to a wound-up clock, the Perrauldian body consisted of fibers that were animated by a living, superior force lodged within it. The human body, if it was a machine at all, was capable of “doing something different from what it is made for” (*EP*, 284). Living matter had the innate ability to adapt.

Perrault had little difficulty in finding evidence for this stunning reversal of Cartesian mechanism. Having dissected countless animals from the royal menagerie, he was convinced that the operation of such a “reasoning” faculty could be easily observed in a horse, for instance. If Cartesian dogma was correct in imagining the movements of a horse to be only the quasi-automatic effect of a series of successive sense impressions devoid of any autonomous reasoning, why was the animal able to recombine these impressions in the reverse order and thus use the same path on its way home? Likewise, how was it possible that a viper whose head had been cut off not only continued to move but also found the way back to its favorite hiding spot, if not through the memory stored in its sentient organ of touch?

As dramatic as the shift from Cartesian dogma to a more flexible mind-body relationship undoubtedly is, it does not fully carry over into the physiology of hearing. If a “reasoning” faculty resides in every fiber of the body, not just in a soul separate from the rest of the body, where in the ear would this “internal sense” be located? How would the “animated” ear, now emancipated from crude Cartesian mechanism, distinguish between different pitches if not by some superior, intellectual capacity such as the soul? How could Perrault's theory of hearing account for the much-debated fact that seventeenth-century audiences were prepared to accept as consonances intervals that arithmetic deemed to be dissonant? In other words, what was the relationship between the rational order

of mathematical proportions, on the one hand, and the world of subjective perceptions, on the other? Perrault tackled these contradictions by seeking refuge in what was becoming a major category of the discourse of “modern liberty”: taste.

A Matter of Taste

Perrault must have sensed the vagueness of “Sçavoir,” for he appended to *Du bruit* a peculiar postlude titled “De la musique des anciens” (Of the Music of the Ancients), in which he distanced himself even further from the claims and cultural models of the “ancients” (*EP*, 335–402). But in so doing, Perrault not only accentuated the relativist stance of the earlier text but also placed it on a more solid footing by grounding it in the concept of good taste. Originally conceived as a response to Giovanni Battista Doni’s account of ancient music *De Praestantia musicae veteris* (1647), “De la musique des anciens” is a blistering attack on the idolization, current throughout the seventeenth century, of ancient Greek music. This idolization, Perrault argued, was simply based on a misreading of the ancient sources. The word *symphonia*, for instance, did not mean that ancient Greek music was the sophisticated polyphonic music modern audiences took it to be. Quite the contrary, it was monophonic and monotonous, little more than a “rhythmic grumble,” a “noise fit for the infancy of the world” (*EP*, 353). To understand the linkage between Perrault’s anti-Hellenic criticism and his otological pursuits, we have to retrace our steps and, it turns out, return to the Louvre and to Perrault the architect.

In 1673, Perrault had translated into French Vitruvius’s *De architectura, libri decem* (Ten books of architecture).¹⁹ Rediscovered during the Renaissance, Vitruvius for two centuries had been the undisputed authority on architecture, aligning in Pythagorean fashion the proportions of buildings with the ratios governing musical harmony. Although by the late seventeenth century such precepts were no longer taken at face value, the idea that musical harmony might in and of itself lend solidity and aesthetic unity to edifices still carried considerable if not practical ideological weight, as is evident in the concurrent publication of *Architecture harmonique* (1677)

by none other than the *maître de musique* at the Sainte-Chapelle in Paris, René Ouyard, and *Cours d'architecture* (1675–83) by the director of the Académie royale d'architecture and one of Perrault's fiercest critics, François Blondel.²⁰ Using the intervallic proportions obtained on the monochord as his yardstick, Ouyard had been dreaming up buildings that would function as vast resonators solely by dint of the harmonic proportions underlying their construction. Blondel, for his part, insisted that the ancient architect's proportions were in agreement with the laws of nature and, like music, were grounded in what he, following Vitruvius, called *eurythmie*.

Perrault's extensive footnotes to Vitruvius's text leave little doubt that he considered his Roman predecessor's views as hopelessly outdated. It may thus well be argued that by the time he wrote "De la musique des anciens," Perrault had already fixed his attention on the full-blown assault on Grecophile architecture he would soon launch in *Ordonnance*. The music essay, then, was but an opening salvo in the culture wars of the late seventeenth century, a mere prelude to the broader project of challenging not just the hegemony of ancient Greek architecture but that of antiquity and the foes of "modern liberty" all told. If, Perrault reasoned, it could be shown that the ancients were "a little ignorant in precisely the science [music] in which they took the most pride" (*EP*, 335), not only would the exalted place of the ancients in the history of music become untenable, but the very usefulness of musical ratios for determining the sizes and proportions of buildings would also become open to doubt.

It was precisely this musical argument that served as the jumping-off point for Perrault's new theory of architecture. The latitude ancient architects had taken in determining the dimensions of buildings, he stated in the opening paragraphs of *Ordonnance*, show "just how ill founded is the opinion of people who believe that correct architectural proportions were as certain and invariable as the proportions that give musical harmony its beauty and appeal—proportions that do not depend on us but that nature has established with absolutely immutable precision and that cannot be changed without immediately offending even the least sensitive ear" (*OF*, 48).

A proper comparison between music and architecture demanded consideration of more than harmonic proportions. Individual and national differences would come into play, as would, perhaps more significantly, epistemological factors. For all their structural homologies, the eye and the ear do not perceive in quite the same manner. Whereas the eye is able to convey to the mind the effect of proportional relationships through knowledge, the ear cannot provide such knowledge (*OF*, 49). Still, Perrault mused, why is it that even though the eye is capable of producing positive knowledge, we often appreciate proper proportions without actually knowing their reason? Are such preferences grounded in something objective, such as musical harmonies, or are they merely founded in custom? Antedating some of the propositions set forth in Charles Perrault's (ultimately more influential) *Parallèle des anciens et des modernes* (1688), Claude Perrault supposed two kinds of beauty to inform our judgment: a beauty based on convincing reasons and an arbitrary sort of beauty. While the former he claimed to be easily apprehended by everyone, he saw arbitrary beauty as entirely based on external associations, such as the patterns of speech or certain forms of aristocratic couture that, although unattractive in themselves, were deemed beautiful because of the "worthiness and patronage of people at court." Thus, it is not reason that forms the basis for aesthetic judgment, but custom (*OF*, 52).

The same holds true for architecture, which displays both positive beauty and beauty that is only arbitrary. Yet far from denying the existence of classical proportions, Perrault considered that these sorts of "positive" beauty belong to the realm of *bon sens*, or common sense proper. Arbitrary beauty, by contrast, is the object of what he called *bon goût*, good taste. Thus, although it takes only common sense to realize that a large edifice built of precisely cut blocks of marble is more beautiful than a small stone house "where nothing is plumb, level or square," only the architect—or, more broadly, the *honnête homme*, the man of distinction—has the knowledge of arbitrary beauty required for *bon goût* (*OF*, 54).

With this notion of good taste, Perrault put himself at plain variance with the prevailing opinion that the beautiful has its origin in the natural proportions inherent in musical harmony and

in architecture and that, hence, in Nicolas Boileau's famous dictum, "rien n'est beau que le vrai" ("nothing is beautiful but the truth"). But the anti-Vitruvian, anticonservative criticism was not the only point behind the issue of good taste. Its significance went beyond architecture, broaching a new sense of art as an autonomous sphere. Nowhere does this become clearer than in one of the key propositions set forth in *Ordonnance*, which directly links Perrault's aesthetics to his scientific research on hearing and sight. This was the idea, fundamental to Vitruvian dogma, that in order to allow the truth of harmonious proportions to appear, the architect has to take into account the optical distortions of dimensions that arise when statues on top of buildings are viewed from a distance and, consequently, have to be slightly tilted forward. Perrault systematically refuted this theory, arguing—as he had shown in *Du bruit*—that hearing and sight are "not as susceptible to surprise and deceit as people claim" (*OF*, 160). Aesthetic pleasure, in other words, is acquired pleasure, or, as Descartes had taught, it is the result of habituation and reflex.

How, then, did Perrault frame the specifically musical component of his argument? The point of departure, once again, was the perennial question of whether or not the music of the ancients was superior to that of Perrault's day. Like Descartes fifty years earlier, Perrault was prepared to grant ancient Greek music exceptional powers. And like the celebrated philosopher, he believed the penchant of Greek musicians for what he called "excessive transport" to reside in the fact that "all they put their effort into was to touch the heart and the senses, which is quite a lot easier than to satisfy the intellect [esprit]." Small wonder that the ancients "did not endeavor to look for another genre of perfection, since it would have been to the detriment of their goal of pleasing the multitude, which is usually more easily moved by the senses and the heart than by the intellect" (*EP*, 388).

And so it was with "modern" music:

Those who do not possess an intellect capable of being touched by what is admirable in the diversity and beautifully arranged consonances of part music [musique à plusieurs parties], but instead only have ears to judge the clarity and intonation of the

voice and a heart to love the gaiety of a cadence or the plaintive sweetness of a sad mode, will prefer a beautiful voice or a sweet flute solo to a music in parts whose beauty remains unknown to them. A musically informed mind, by contrast, will be ravished with admiration upon hearing an excellent counterpoint, poorly sung though it may be. (*EP*, 390)

The association of taste with social status highlights the contrast between Cartesian concepts of “modern” subjectivity and the precariousness of Perrault’s project of grounding the “modern” in aesthetic relativism and “animism.” According to Luc Ferry, the “birth of taste” is directly correlated with Cartesianism’s attempt to ground the quest for truth (and, implicitly, freedom) in a radical shift from tradition as the basis of certainty to a form of subjectivity affirming itself through self-reflexive doubt.²¹ Yet for Perrault the pursuit of certainty and the “modern liberty to move on” entailed a far less unequivocally Cartesian type of subject. This subject acquires its faculty for aesthetic judgment not solely, or predominantly, from a “blank slate” and the “absolute certainty the subject has of seizing himself through his own thought,” as does the Cartesian subject, but from the reasoning faculty lodged within his or her own animated body (*HA*, 15).

Perrault’s simultaneous rejection of Pythagorean musical dogma and Cartesian physiology also casts doubt on Ferry’s all-too facile equation of the “revolution of taste” with democratic revolt. Perrault struggled to anchor the compatibility of sense and reason within the larger framework of absolutism’s “modernizing” agenda. The simultaneously resonating and “reasoning” cochlea, while potentially enlarging the subject’s sphere of liberty, also threatened to undermine the established order. In this situation, taste was thus a politically expedient category. Always a good way to end an argument, especially in the face of authority, taste bridged the conflicting strands of late-seventeenth-century subjectivity. At the same time as Perrault’s work straddled several aesthetic, political, and scientific projects without resolving the contradictions inherent in doing so, it is precisely the everyday, “vernacular” character of his modernity that lends his theory of voice and hearing a refreshing uniqueness.

Notes

1. Robert Cambert, *Les peines et les plaisirs de l'amour* (Paris, n.d.). This modern edition for voice and piano also contains a brief introduction on the historical background.
2. Claude Perrault, "Préface manuscrite du Traité de la musique de Claude Perrault (Bibl. Nat. manusc. fr. 25,350)," in Claude Perrault, *Du bruit et de la musique des anciens* (Geneva: Minkoff, 2003), 576–91. Hereafter cited as "PM."
3. Stephen Jay Gould, *The Hedgehog, the Fox, and the Magister's Pox* (New York: Knopf, 2003), 81.
4. The best account by far of Claude Perrault's life and work is Antoine Picon, *Claude Perrault, 1613–1688, ou la curiosité d'un classique* (Paris: Picard, 1988). See also Claude Perrault, *Ordonnance for the Five Kinds of Columns after the Methods of the Ancients*, trans. Indra Kaxis McEwen (Santa Monica: Getty Center for the History of Art and the Humanities, 1993). Hereafter cited as *OF*. On Perrault's zoological work see Anita Guerrini, "The 'Virtual Menagerie': The *Histoire des animaux* Project," *configurations* 22, nos. 1–2 (2006): 29–42. The best discussion of Perrault's role in the architecture of the Louvre is Michael Petzet, *Claude Perrault und die Architektur des Sonnenkönigs* (Munich: Deutscher Kunstverlag München Berlin, 2000).
5. Claude Perrault, *Essais de physique; ou, Recueil de plusieurs traitez touchant les choses naturelles*, 4 vols. (Paris: Jean Baptiste Coignard, 1680). Hereafter cited as *EP*. I am translating *bruit* as "sound," because Perrault intended the concept to encompass more than just noise. A reprint of parts of *Du bruit* appeared as Claude Perrault, *Du bruit et de la musique des anciens: Préface de François Lesure* (Geneva: Minkoff, 2003).
6. For a parallel attempt to reimagine the early modern voice see Suzanne Cusick, *Francesca Caccini at the Medici Court: Music and the Circulation of Power* (Chicago: University of Chicago Press, 2009).
7. Richard Taruskin, *The Oxford History of Western Music: The Earliest Notations to the Sixteenth Century*, 6 vols. (Oxford: Oxford University Press, 2005), 1:797.
8. Gary Tomlinson, *Metaphysical Song: An Essay on Opera* (Princeton: Princeton University Press, 1999), 40–61. Hereafter cited as *MS*.
9. Georgia Cowart, *The Triumph of Pleasure: Louis XIV and the Politics of Spectacle* (Chicago: University of Chicago Press, 2009). Hereafter cited as *TP*.

10. Lorraine Daston and Katherine Park, *Wonders and the Order of Nature, 1150–1750* (New York: Zone Books, 1998); Ernest d’Hauterive, *Le merveilleux au XVIIIe siècle* (Paris: Félix Juven, 1902).
11. Jean-François Marmontel, “Opéra,” *Œuvres complètes*, 19 vols. (Paris: Verdier, 1818–20), 14:409.
12. Catherine Kintzler, *Théâtre et opéra à l’âge classique: Une familiarité étrangeté* (Paris: Fayard, 2004), 10–11. Hereafter cited as *TO*.
13. Catherine Kintzler, *Poétique de l’opéra français de Corneille à Rousseau* (1991; Paris: Minerve, 2006), 301–2, my emphasis. Hereafter cited as *PO*.
14. For more on this see Thomas Christensen, *Rameau and Musical Thought in the Musical Enlightenment* (Cambridge: Cambridge University Press, 1993), 133–68.
15. On identification in early-eighteenth-century opera see Downing A. Thomas, *Aesthetics of Opera in the Ancien Régime, 1647–1785* (Cambridge: Cambridge University Press, 2002), 201–64. On “exteriorizing” identification see Kaja Silverman, *Male Subjectivity at the Margins* (New York: Routledge, 1992), 264.
16. Christine Buci-Glucksmann, *La folie du voir: Une esthétique du virtuel* (Paris: Galilee, 2002). Hereafter cited as *FV*.
17. Gilles Deleuze, *The Fold: Leibniz and the Baroque* (Minneapolis: University of Minnesota Press, 1993), 132–37. Hereafter cited as *TF*.
18. Joseph-Guichard Duverney, *Traité de l’organe de l’ouïe* (Paris: Estienne Michallet, 1683). Hereafter cited as *TL*. For a reprint of the English translation of 1737, see *A Treatise of the Organ of Hearing* (New York: AMS Press, 1973).
19. Claude Perrault, *Les dix livres d’architecture de Vitruve* (Paris, 1995).
20. René Ouvrard, *Architecture harmonique, ou Application de la doctrine des proportions de la musique à l’architecture* (Paris: Bibliothèque de l’image, 1677); François Blondel, *Cours d’architecture* (Paris: R.J.B. de La Caille, 1675), 756–60.
21. Luc Ferry, *Homo Aestheticus: The Invention of Taste in the Democratic Age* (Chicago: University of Chicago Press, 1993), 14–15. Hereafter cited as *HA*.