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Violin Practice and the Corporeal Construction of Musical Thought

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by

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The dissertation of Keir David GoGwilt is approved, and it is acceptable in quality and form for publication on microfilm and electronically.

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ABSTRACT OF THE DISSERTATION

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This dissertation tracks the historical abstraction and dissociation of performing bodies from musical composition in classical music. I show that while dominant pedagogical traditions have historically distinguished between bodily practice and musical ideation, corporeal performance has always guided the construction of musical thought and creativity. While I attend to the progressive disciplining of bodies through formulaic exercises and regulative canons of musical works, I also draw out the hugely variable historical configurations of performers' practices and knowledge. Throughout the dissertation I compare historical accounts of performing bodies as measuring sensoria, perceiving subjects, finely-tuned instruments, and generative structures for musical creation. These bodies have historically arbitrated musical aesthetics as both the

perception and cognition of tones, and as judgments of taste, beauty, and truth.

The dissertation consists of close-readings of pedagogical treatises, compositions, and recordings of violinists from the mid-18th to the mid-20th centuries. A first glance at this literature unsurprisingly reveals disciplinary programs which reinforce the enduring image of performance as the reproduction (rather than creation) of musical works. Yet a closer reading of these texts, scores, and recordings renders an image of the violinist's resounding body as a locus of music's material, social, and intellectual histories.

Within this corpus of violin practice, musical knowledge is developed, suppressed, and resurfaced in elliptical cycles of disciplining and experimentation. In contrast to the predominantly patrilineal trees of violin teachers and their teachers' teachers used to justify and consolidate pedigree and cultural authority, this genealogy of performance pedagogy attends to the generational cycles of willful amnesia and selective recall characterizing the passage of embodied knowledge. I address the neglected influence of these negotiations of violinistic listening and corporeal practice on familiar histories of musical abstraction.

INTRODUCTION

The Corpus of Violin Practice

This dissertation tracks the abstraction and dissociation of performing bodies from musical composition in classical music. I argue that while dominant pedagogical traditions have historically distinguished between bodily practice and musical ideation, corporeal performance has always guided the construction of musical thought and creativity. While I attend to the progressive disciplining of bodies through formulaic exercises and regulative canons of musical works, I also draw out the hugely variable historical configurations of performers' practices and knowledge. Throughout the dissertation I compare descriptions of performing bodies as measuring sensoria, perceiving subjects, finely-tuned instruments, and generative structures for musical creation. These bodies have historically arbitrated musical aesthetics as both the perception and cognition of tones, and as judgments of taste, beauty, and truth.

I close-read pedagogical treatises, compositions, and recordings of violinists from the mid-18th to the mid-20th centuries. These violinists include Francesco Geminiani, Giuseppe Tartini, Francesco Galeazzi, Leopold Mozart, Bartolomeo Campagnoli, Jean-Baptiste Cartier, Pierre Baillot, Joseph Joachim, Carl Flesch, and Rudolf Kolisch. A first glance at this pedagogical literature unsurprisingly shows disciplinary programs which reinforce the enduring image of performance as the reproduction (rather than creation) of musical works. Yet a closer reading of these texts, scores, and recordings renders an image of the violinist's resounding body as a locus of music's material, social, and intellectual histories.

Within this corpus of violin practice, musical knowledge is developed, suppressed, and resurfaced in elliptical cycles of disciplining and experimentation. The circuitous nature of this account resembles Michel Foucault's description of genealogy as following "the errors, the false appraisals, and the faulty calculations that gave birth to those things that continue to exist and have value for us."[1] In contrast to the predominantly patrilineal trees of violin teachers and their teachers' teachers used to justify and consolidate pedigree and cultural authority, a genealogy of performance pedagogy attends to the generational cycles of willful amnesia and selective recall characterizing the passage of embodied knowledge. By focusing on the errors, aberrations, and unlikely connections in these musicians' accounts, this genealogical reading measures the gulf between material practices and idealized histories of classical culture. The genealogical lens of this study is attuned to the ways in which the familiar narrative of musical abstraction is conditional upon complex negotiations of violinistic listening and practice.

A secondary argument, related to this history of musical abstraction, revisits the common narrative of instrumental music as the "most congenial vehicle for the rigorous pursuit of absolute 'musical thinking.'"[2] Christoph Wolff's elaboration of J.S. Bach's term "musical thinking" gestures towards the historical progression of instrumental music from galant tastes to the formal abstractions of 19th- and 20th-century music. By centering performing bodies within this history, I point to the ways in which constructions of musical thought, increasingly abstracted from bodily practice, are nonetheless premised

[1] Michel Foucault, "Nietzsche, Genealogy, History," in *The Foucault Reader*, ed. Paul Rabinow (New York: Pantheon Books, 1984), 81.
[2] Christoph Wolff, *Bach: Essays on his Life and Music* (Cambridge: Harvard University Press, 1991), 83.

on the rationalization and schematization of the performing body. That is to say, musical thinking never transcends bodily thinking, even if the two activities are increasingly separated from one another.

A tertiary argument of the dissertation looks at the classicization of musical culture through the lens of performers' pedagogy and thought. I use the term "romantic amnesia" to describe the way in which classical culture – even in its various guises as early music or radical music – continually capitalizes on the fetish aura of forgotten material techniques and experiences. Romantic amnesia describes the way in which romantic notions of *Geist* and spirit are constructed through the anachronistic layering of hermeneutic and material practices. For example, the 19th-century revival of Bach's violin music was conditioned on the forgetting (amnesia) of the improvisatory practices undergirding Bach's compositions and the addition of virtuosic violin techniques developed after Bach's death. This superimposition of bravura techniques on Bach's resuscitated solo violin works contributed to the composer's image as transcending the material limitations of the instrument – limitations that have been explored and dramatized by generations of virtuoso performers. That is, Bach's spirit represents the convergence of subjects who inhabit multiple historical-material moments, and whose means and methods are foreign to each other. This is but one example of romantic amnesia, and the way it operates in classical culture. Throughout the rest of this dissertation, I read pedagogical texts and treatises as instructions for inviting these bygone subjectivities, forgotten reflexes, and spectral presences into the moment of performance. While the irruption of historical *Geist* in performance is described as eluding rational control, it nonetheless presents itself through generational and generative

passages of bodily knowledge and discipline.

0.1 On Genealogy and Personal Practice

My study of genealogies of violin practice is motivated and informed by my own practice as a violinist, improviser, and sometimes-composer. Rather than re-iterating the prescriptive nature of the pedagogical treatise, I am more interested in following myriad examples for mediating subjectivity in violin practice, in an attempt to piece together the epistemological and ideological frameworks out of which our performing subjects are formed. In my own experience, navigating a pluralistic array of contemporary aesthetics and communities has resulted in both euphoric feelings of discovery, and moments of social and cognitive dissonance that put me at odds with my own sense of self and belonging. The process of researching and writing this dissertation has helped me to understand some of the historical identities moving through my body in reflexive acts of improvisation and performance, and the ways in which historical delimitations of taste and technique contribute to my resulting feelings of subjective dislocation and alienation.

I have recently been staying with these moments of dissonance between practices of cultural critique and cultural production, in articles and conference papers reflecting on historical presences in some of my own creative collaborations. In our article, "*a loose affiliation of alleluias*: Tracing Genealogies of Technique and Power in Creative Practice," composer Celeste Oram and I discuss some of the material histories guiding our composition, improvisation, and performance of Celeste's violin concerto.[3] These histories include those of taste as a circumscribing marker of elite patronage, or

[3] Celeste Oram and Keir GoGwilt, "a loose affiliation of alleluias: Tracing Genealogies of Technique and Power in Creative Practice," *Current Musicology* Vol. 108 (Fall 2021).

ornamentation as an index of a performer's individuality, tracking the enduring hold of these cultural techniques on our practices.[4] Other recent papers similarly excavate the broader social and cultural histories to some extent determining my present practice. In an article on my early collaboration with dancer/choreographer Bobbi Jene Smith, for example, we discuss the ways in which our creative work responds to the control, disempowerment, and erasure of performing bodies in romantic and modernist Euro-logics of the 19th and 20th centuries (in both music and dance).[5] These and other developing articles have drawn out the critical and creative implications of the genealogical work of this dissertation.

The contextual, citational angle of my creative collaborations is intended to shift the implied purpose of composition away from canonization and towards a mode of phenomenological and genealogical research. That is, creativity as a way of reckoning with historical inheritances, rather than as a way of "making history." My hope is that by drawing out the ways in which creative agency and decision-making are determined by

[4] We draw on a cluster of cultural theories – Ben Spatz's explanation of technique as the reproduction of historical knowledge, Edward Said's notion of "affiliations" as naturalized networks of cultural relation and authority, Georgina Born's observations of the negational aesthetic ideologies common to both musical modernism and postmodernism – building a frame for our own critical account of the inherited material histories surfacing in our embodied, kinesthetic practices; Ben Spatz, *What a Body Can Do: Technique as Knowledge, Practice as Research* (New York: Routledge, 2015); Edward Said, *The World, the Text, and the Critic* (Cambridge: Harvard University Press, 1983); Georgina Born, *Rationalizing Culture: IRCAM, Boulez, and the Institutionalization of the Musical Avant-Garde* (Berkeley: University of California Press, 1995).

[5] More specifically, we point to the ways in which the American experimental composer/violinist Malcolm Goldstein worked with the Judson dance group, and proximally to George Lewis' description of "Afrological" music-making, in order to build a personal, improvisatory, and corporeally-driven practice; George Lewis, "Improvised Music After 1950: Afrological and Eurological Perspectives," *Black Music Research Journal* 22 (2002), 243.

historical presences and elite affiliations, this work resists de facto understandings of composition within classical culture as linked to romantic notions of individualistic genius. While I do not center my own practice and creative work in this dissertation, there is a mutually productive relation between the genealogical work of these co-authored articles, the collaborations on which they reflect, and my dissertation.

Similarly, the creative, corporeal, and social stakes of my practice subtly shift the terms of my historical research. I am struck by the ways in which various contemporary and historical arguments for music's cultural advancement, relevance, or sociability, romanticize certain figures, works, and traditions, while forgetting or suppressing the material histories undergirding their production. My engagement with violinists' pedagogical texts posits a similarly dialectical reading of inherited disciplinary frameworks of classical music, as both a means of maintaining power, patronage, and cultural authority through the cultivation of elite tastes and techniques, and at the same time, as a means of transhistorical communion between different bodies and subjects. All of the violinists appearing in this dissertation grapple with these dual potentials: tradition as the unthinking enforcement of order, and historical discipline as a way into personal modalities of imaginative practice, expression, and experimentation. By attending to the collisions of these violinists' practical instructions and their idealized accounts of music, I argue that the complex dynamic between cultural (re)production and cultural critique is not unique to our present, but rather a dialectical encounter between historically paradigmatic antitheses: culture versus nature, subject versus object, practice versus theory, unconscious performance versus rational study.

0.2 Methods, Text & Interpretation, Disciplinary Conjunctures

On the face of things, pedagogical treatises for instrument playing are dryly prescriptive documents, at best ancillary to great musical works and theoretical texts of the European classical tradition. More recently, however, musicologists like Stefan Knapik and Kailan Rubinoff have noted the ways in which treatises function as Foucauldian instruments of power which reinforce institutional structures and ideologies.[6] Rebecca Cypess' investigation of *seicento* instrumental music likewise reads treatises (among other documents) in order to reframe musical instruments as "tools capable of exploring players' and listeners' internal *Affetti* and external environment, and of mediating the slippery boundary between nature and artifice."[7] And James Davies' comparison of pedagogies employed by 19th-century pianists Friedrich Kalkbrenner and Franz Liszt points to a similar dialectic of instrumental pedagogy pitting systematic taxonomies for disciplining the mind and body against instrumental practice as a means of expanding one's sensorial and sympathetic capacities.[8] In these accounts, it becomes clear that the stakes of pedagogy encompass the consolidation of institutional power and disciplinary traditions, as well as potentials for the acquisition of scientific, social, and self knowledge.

My own genealogical reading attends to the variable configurations of violinistic embodiment and knowledge production present in these treatises. Instrumental treatises

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[6] Kailan Rubinoff, "Toward a Revolutionary Model of Music Pedagogy," *Journal of Musicology* 34, no. 4 (2017), 473-514.
Stefan Knapik, "The Master(ed) Violinist: Carl Flesch's Pedagogical Treatise and Memoirs," *Music and Letters* 96, no. 4 (2015), 564-601.
[7] Rebecca Cypess, *Curious and Modern Inventions: Instrumental Music as Discovery in Galileo's Italy* (Chicago: University of Chicago Press, 2016), 9.
[8] James Q Davies, *Romantic Anatomies of Performance* (Berkeley: University of California Press, 2014), 170.

tend to be written in a prescriptive tone; my own descriptions, however, emphasize their variability of thought, countering the uniform order that some of them would impose. My readings seek to encourage the proliferation of diverse practices within and around this tradition, drawing attention to the shifting relationships between discourses and bodies that these pedagogical networks discipline, imagine, and describe.

One could position the renewed interest in performance pedagogy in relation to the various turns following poststructural theory – from the realm of linguistic analysis and semiotic theory, to the study of media and discourse networks.[9] The explosion of performance treatises written and published from the mid-18th century on highlights the importance of print culture in this era, and the subsequently bolstered practice of textual and musical interpretation. The combination of text, images, and musical notation that the treatise contains, demonstrates the genre as an entity whose multiple media attempt to compensate for the distance between the printed page and the body. For example, Leopold Mozart's inclusion of an image of the violinist and their correct postures/positions in his *Versuch* shows an early attempt to model the ideal likeness of a body. However, the static, two-dimensional nature of this image also accentuates the gulf between textual, imagistic, and corporeal reproductions of the musical act.

In deconstructive terms, one might think of this relationship between treatises and bodies as a sliding of signifiers over signifieds: a fluid deferral of musical meaning in the passage between words, notations, musical structures, bodies, and sounds.[10] Rather than

[9] Alexander Rehding, "Discrete/Continuous: Music and Media after Kittler," *Journal of the American Musicological Society* Vol. 70 No. 1 (Spring 2017), 221-256.
[10] I refer here to a construction such as Derrida's *différance*, coterminous with the deferral and differentiation of meaning; Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore, MD: Johns Hopkins University Press), 2016.

simply prescribing or describing musical practice, I understand instrumental treatises as participating in a broader set of cultural inscriptions which include the mutually affecting realms of the corporeal and the linguistic. Taking Alexander Weheliye's observation that "any sound re/production is technological"[11] as a jumping off point, I argue that the treatise genre carries partial blueprints for the enculturation of musical bodies within the logocentric coordinates of European art music. It is in this genre that performers alternately repress and idealize their bodies and sounding potentials.

One might similarly position a contemporary reading of instrumental treatises in relation to what Sybille Krämer and Bernhard Siegert call "cultural techniques," centering the human subject and its own capacities for information processing.[12] Performance practice involves a huge multitude of cultural techniques such as ornamentation, partimento writing, or figured bass, to name only a few, which guide performers' mediations between social tastes, notated scores, shared and contested understandings of tradition, authenticity, and musical expression. While media theory is often positioned in reaction to a perceived overemphasis on textual hermeneutics, I point to the entanglements and negotiations between textual, corporeal, and medial practices throughout every century of this musical pedagogical history; entanglements which are particularly vivid in the treatise literature.

These negotiations between texts and bodies can be tracked, in part, through discursive shifts in the treatise literature. For example, 19th-century references to bodily technique posit a static, structural entity standing in reserve for a performer's

[11] Alexander Weheliye, *Phonographies: Grooves in Sonic Afro-Modernity* (Durham, NC: Duke University Press, 2005), 6.
[12] Rehding, "Discrete/Continuous," 7.

reproductions of musical works. This stands in contrast to earlier descriptions of techniques, which could be employed for the construction of specific musical movements and affects. Carl Flesch's further specification of "general" versus "applied" technique further clarifies the corporeal and hermeneutic implications of this conceptual emergence: a violinist was tasked with building a general technique through unmusical scales and exercises, before applying this in the contexts provided by composed, musical works. The intensified separation of technique and musical expression contributed to idealized descriptions of textual interpretation and tonal production as manifesting the subjective spirit and interiority of a performer. This union and subsequent dissociation of techniques from affects represent the changing apportionment of the subjective and objective components of musical practice: expression is divested from specific techniques and instead invested in particular interpretations of musical works, general tonal quality, or the *Geist* of the composer/performer.

In many ways, this unlearning of techniques resembles Krämer and Bredekamp's statement that the concept of culture, in its evolution, "'forgets' its genesis. Over time, the material and technical elements of culture recede further and further into the background, as the term is 'refined' into a *cultura animi* with the intention of 'spiritualizing' it."[13] Performers' forgetting of material techniques does indeed coincide with idealist notions of (Hegelian) spirit and the parsing of subjective and objective components of musical texts, bodies, and sounds. Krämer and Bredekamp link this forgetting to their anti-hermeneutic stance, noting the "changing meaning of culture"

[13] Sybille Kramer and Horst Bredekamp, "Culture, Technology, Cultural Techniques – Moving Beyond Text," *Theory, Culture and Society*, no. 30 (2003), 21.

from "technique to text, from things to symbols, from processing to interpreting."[14] The rise of musical interpretation, culminating in Rudolf Kolisch's total subordination of performing subjects to the supposedly objective means (and potentially transcendental results) of textual score analysis, presents a parallel recession of cultural techniques linked to material bodies and sounds.

The forgetting and "spiritualizing" of material/technical elements of culture relates to my own descriptions of the romantic amnesia operant in classical culture. However, I seek a dialectical understanding of romantic amnesia – one which understands the fetish power of the past as mimetic currency for its present reproductions. This desire to keep alive the magic of one's technologies is succinctly expressed by Michael Taussig in his turning of the ethnographic gaze upon Western culture: "Taking the talking machine to the jungle is to do more than impress the natives and therefore oneself with Western technology's power [...] it is to reinstall the mimetic faculty as mystery in the art of mechanical reproduction, reinvigorating the primitivism implicit in technology's wildest dreams, therewith creating a surfeit of mimetic power."[15] Taussig's reading of real and fictional accounts of prospectors playing phonograph recordings in New Guinea and the Amazon focuses on the colonizer's fascination with reporting the native's fascination with the machine. In this encounter, it is equally the Western prospectors who rediscover the genuine magic of recording technology, made commonplace by its commodification in their own society, and witnessed through colonial performances and enactments.

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[14] *ibid*, 22.
[15] Michael Taussig, *Mimesis and Alterity: A Particular History of the Senses* (New York, London: Routledge, 1993), 208.

The colonial ritual of playing the phonograph and vicariously rediscovering its mimetic magic might well describe classical music culture writ large. Given that classical music operates through the continual reproduction and "renewal" of existing traditions, techniques, and repertories, the forgetting and idealizing of preexisting practices is a necessary step in performatively rediscovering the mimetic magic of all-too-familiar cultural techniques and technologies. Theodor Adorno used various pejorative adjectives (culinary, superficial, streamlined) to describe a style of classical performance suited for mass radio and television audiences; his own explorations of the radical music of Schoenberg in the *Philosophy of New Music* constituted his own mode of aesthetic prospecting for the "forgotten [...] experience of music."[16] This echoes Tartini's project in the 18th century of rediscovering ancient musical modes through the union of melody and poetry, and discarding the fashionable techniques and tastes of his contemporaries. Other examples include Schoenberg's employment of baroque counterpoint over romantic harmony, or the 19th-century revival of J.S. Bach's music as a forgotten foundation of Germanic *Geist*.[17]

These examples, which appear throughout the dissertation, recapitulate classical culture's inclination towards romantic amnesia. What I hope to illustrate are the ways in which commonplace understandings of historical spirit, or the spirit of the times, are made possible through the disciplining of material bodies. It is the pedagogical codification of techniques and texts which links bodies across time and place, contributing to material constructions of a shared sense of *Geist*, spirit, and transhistorical

[16] Theodor Adorno, *Philosophy of New Music*, trans. Robert Hullot-Kentor (Minneapolis: University of Minnesota Press, 2006), 22.
[17] Celia Applegate, *Bach in Berlin: Nation and Culture in Mendelssohn's Revival of the "St. Matthew Passion"* (Ithaca: Cornell University Press, 2014).

communion. This entrainment of bodies delimits musical expression; but it also maintains a repository of historical experience which variably resurfaces in present bodies practicing in the classical tradition.

0.3 Abstractions of Musical and Bodily Thinking

Over the course of the dissertation, I attend to contestations over musicians' understanding of the means and ends of instrumental study. These shifts and conflicts take shape within instrument-specific terms, such as scales, ornamentation, tone, and intonation. The practice of these techniques leads violinists – including Tartini, Geminiani, Mozart, Galeazzi, Baillot, Flesch, and Joachim – to theorize about their broader implications for questions of acoustics, affect/emotion, and notions of self and subjectivity. For example, some of these violinists' understandings of intonation demonstrate very different visions of instrumental practice as a mode of scientific experimentation, a means of artful reproduction, or the quasi-religious summoning of historical spirit. Within these shifting and competing visions of instrumental practice, terms like intonation, tone, and ornamentation serve as nodal points in the movement from the schematic, improvisatory practices of the 18th century, to the weighted emphasis on musical structure characteristic of 19th and 20th-century formalist aesthetics.

While I do not propose a single story about the emergence of contemporary violin pedagogy, I do attend to the rationalization, abstraction, and idealization of performance practice during the three centuries in question. In Chapter Two, I point to Galeazzi's descriptions of musical templates, ideas, and forms, as a way of describing the movement from schematic 18th-century practices of composition, improvisation, and performance, to

the formal abstraction of musical ideas characterizing 19th and 20th-century practice. The 18th-century practice of partimenti – formulaic bass lines which could be strung together, facilitating the rapid composition or improvisation of musical pieces – is representative of this earlier schematic approach, which was premised on a network of interrelated skills: instrumental playing, figured bass, ornamentation, variation writing, etc. Galeazzi's voluminous *Elementi teorico-practici di musica* (1791/1815) provides detailed descriptions of certain musical templates, such as the ground bass or the rule of the octave, which guide schematic composition. At the same time, he points to emergent notions of musical form as an essay organized by one or two musical ideas. His descriptions of ideas as modular themes, which can be abstracted and rearranged to build larger forms, points to the emergent idealism of 19th-century practice, in which schematic modes of composition, improvisation, and performance, gave way to more clear-cut divisions between the composition and interpretation of large scale, narrative movements and works.

This transition from schematic to formal thinking marks more than a shift in the practical terms of musical creativity; it also marks the migration of musical meaning and affect, from units of bodily-musical production (e.g. an ornament or chromatic bass line) to musical structures that are abstracted from the bodies that compose and reproduce them. Co-emergent with this musical formalism (perhaps most influentially encapsulated by Eduard Hanslick)[18] was the conscious disciplining of a body's structuring technique. By focusing on bodily technique as the means for musical reproduction, pedagogues like Baillot, Joachim, and Flesch discursively separated technique from musical

[18] Lee Rothfarb and Christoph Landerer, *Eduard Hanslick's "On the Musically Beautiful": A New Translation* (Oxford: Oxford University Press, 2018).

expression/meaning, which came to reside in the depths of musical structures and the inner lives of performing subjects. Flesch's description of vibrato as the unconscious emanation of the performer's "deepest feelings," for example, underscores the shift from affective representation to romantic performances of subjectivity. Within Flesch's paradigm, the body has to become a transparent medium, reflecting the dissociation of the mechanized body from the channeling of individual and historical spirit.

In the following subsections I track the developing treatment of intonation and ornamentation, to show how these terms functioned within broader dissociations of sound from structure, subject from object, technique from expression, and bodily from musical thinking. These dissociations come to dominate the romantic/modernist idealism of the 19th and 20th centuries, bisecting musical and corporeal modalities of thought and practice.

Intonation

Historical considerations of intonation trace a long arc through the dissertation, revealing shifting understandings of instrumental study from a means of expression to the acquisition of scientific knowledge. Giuseppe Tartini's discovery of combination tones (what he called the *terzo suoni*) resulted from his practice of tuning double-stops on the violin. This discovery formed the basis of the violinist's treatise on harmony (1754), and confirmed his belief that music constituted a small part of a greater "physicoharmonic science."[19] Tartini's use of the violin as an instrument for scientific knowledge is followed in Francesco Galeazzi's *Elementi* (1791/1819), in which Galeazzi experiments

[19] Giuseppe Tartini, *Trattato di musica seconda la vera scienza dell'armonia*, trans. Fredric Johnson, (Dissertation: Indiana University, 1985), 444.

with the materials of the body and instrument to diagram the smallest perceivable fluctuations of pitch. For Galeazzi, this theoretical mapping of knowledge about intonation aids the acquisition of precise intonation. Intonation does more than connect instrumental practice to a larger musical science; a violinist with precise intonation "reaches our heart, insinuates himself into our soul itself, and pervades us with the most vivid pleasure."[20]

Galeazzi's descriptions of intonation present a median point, treating violin practice as something between scientific experimentation and artful reproduction. Bartolomeo Campagnoli's *Méthode* (1815) entirely reverses Tartini's approach to the study of intonation: the *terzo suono*, a discovery that was for Tartini "as sensational as a Copernican revolution,"[21] becomes a pedagogical device "for testing the accuracy of intonation in the performance of double notes"[22] in Campagnoli's treatise. Campagnoli's more practically-oriented understanding of intonation is largely reproduced in contemporary and later treatises. In the writings of influential 19th-century pedagogues like Baillot and Joachim, intonation represents one component of tone production, a sonic exteriority that represents the violinist's innate individualism.

The shift from empirical observations of intonation, to judgments of tone as manifesting subjective interiority, is not a linear history, but rather a state of cyclical irruptions of historical knowledge. This is perhaps most vividly dramatized in the encounter between Joachim and the scientist/natural philosopher, Hermann von

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[20] *ibid*, 227.
[21] Pierpaolo Polzonetti, "Tartini and the Tongue of Saint Anthony," *Journal of the American Musicological Society* 67, no. 2 (2014), 441.
[22] Bartolomeo Campagnoli, *Nouvelle Méthode de la Mécanique Progressive du Jeu de Violon*, *Op. 21* (Leipzig: Breitkopf und Härtel, ca. 1808-1815), 16.

Helmholtz. According to Helmholtz, to his "scientific, acoustical questions they [Joachim and Brahms] always gave artistic, musical answers"[23] – a symptom of incompatibilities of observational empiricism and romantic aesthetics. Seen in another light, Helmholtz's research, which used the "quality of the tone of the violin" [24] to calibrate measurements of intervallic consonance, represents the continuation of Tartini and Galeazzi's practical use of the violin as a scientific instrument. Furthermore, even despite their inability to find common terms for describing tone and intonation, Helmholtz was astonished by Joachim's ability to hear and reproduce just-intoned intervals. As I argue in Chapter Four, Joachim's tacit awareness of just intonation exemplifies the resurfacing of buried knowledge which remains present in bodily practice.

In Carl Flesch's *Die Kunst* (1923, 1928), intonation is a component of the violinist's larger program to train the body's unconscious, reflexive mechanisms via conscious, rational means. As such, Flesch attempts to program elements of Helmholtz's research into his student's bodily calculus. Flesch's loose reading of Helmholtz – akin to Campagnoli's reading of Tartini – is another example of the ways in which forms of experimental knowledge are subsumed within disciplinary regimes, unexpectedly resurfacing in practical and pedagogical contexts.

Ornamentation

These violinists' differing descriptions of ornamentation and extemporization

[23] Benjamin Steege quoting Andreas Moser; Benjamin Steege, *Helmholtz and the Modern Listener* (Cambridge: Cambridge University Press, 2012), 210.
[24] Hermann von Helmholtz, *On the Sensations of Tone as a Physiological Basis for the Theory of Music*, trans. Alexander J. Ellis (North Chelmsford: Courier Corporation, 1954), 187.

similarly track the rationalization and spiritualization of practice, and the forms of forgetting that shape and transform classical culture. In the mid-18th century, ornamentation existed along a continuum from embellishment, cadential improvisation, theme and variations, to free fantasy. Both Geminiani and Tartini laid out rubrics for ornamentation, which was in their minds closely associated with both questions of taste and affect. Geminiani's "Ingredients of a good Taste,"[25] appearing in his 1749 treatise, gives detailed descriptions for the bodily execution of fourteen ornaments, as well as the specific affects corresponding to them. Tartini's treatise on ornamentation similarly connects the technique to individual expressions of good taste, introducing his reader to natural ornaments, progressing to more involved artificial ones, and finally providing examples of their combination to create longer extemporized passages over cadences.

These texts demonstrate the ways in which ornamentation in the mid-18th century was an important technique for violinists wanting to demonstrate their ability to tastefully balance an understanding of musical conventions and their own combinatorial imaginations. The combinatorial aspect of ornamentation is made explicit in Galeazzi's *Elementi*, in which he calculates thousands of possible ornamental permutations based on a single melody.[26] By contrast, Mozart's *Versuch* is not intended to teach students to liberally ornament or extemporize, nor does it take an interest in the more theoretical and mathematical pursuits that concerned Galeazzi or Tartini. Rather, the *Versuch* serves as a catalogue of prescriptive rules for reading different notations of ornaments. Mozart's approach designates a critical shift in violin pedagogy towards the legislation of the

[25] Francesco Geminiani, *A Treatise of Taste in the Art of Musick* (London, 1749).
[26] Francesco Galeazzi, *The Theoretical-Practical Elements of Music, Parts III and IV*, trans. Deborah Burton and Gregory W. Harwood (Urbana-Champaign: University of Illinois Press, 2012), 357.

proper reading and execution (*ausführung*) of notated signs.

Mozart's legislative approach to ornamentation signals a broader shift away from an integrated pedagogy of schematic composition and improvisation, and towards an emphasis on the proper reading and reproduction of musical signs and conventions. This approach was taken up by early 19th-century French pedagogues including Pierre Baillot, whose examples of ornamentation are mostly drawn from existing works by violinist-composers including Corelli, Tartini, Viotti, and W.A. Mozart (Leopold's son). Baillot's cataloguing of ornamentation from pre-existing pieces signals the Paris Conservatoire's important role in establishing and reinforcing canons of historical works, as well as their intentional suppression of extemporization.[27] Co-emergent with the suppression of ornamentation/extemporization as a basic pedagogical tool was an emphasis on forms of spontaneous inspiration, or what Baillot refers to as "a movement improvised by the soul."[28] This rhetorical emphasis on improvisation, supplanting improvisational practice, shows the shrinking of performers' imaginative domain. At the same time, the regulation of musical creativity via intensified forms of bodily discipline, standardized repertoire, and social hierarchy, resulted in clearer standards for the measurement of a subject's technical capabilities and soulful expression/spontaneity. In other words, musical creativity as such was in this time being contested and redefined.

Joachim's description of ornaments as "Kabbalistic crosses, dashes and crescent moons"[29] metaphorically describes the opaque, clandestine appearance of ornament notation for the 19th-century interpreter. In *Die Kunst*, the younger Hungarian violinist

[27] Rubinoff, "Toward a Revolutionary Model," 506.
[28] Pierre Baillot, *The Art of the Violin*, trans. Louise Goldberg (Evanston: Northwestern University Press, 1999), 354.
[29] Joseph Joachim and Andreas Moser, *Violinschule* (Berlin: N. Simrock, 1905), 24.

Flesch attempts a clear elaboration of conventions for reading notation by reviewing the use of various signs for appoggiaturas appearing in treatises by Geminiani, Tartini, Leopold Mozart, C.P.E. Bach, and in the works of composers including Gluck, Haydn, W.A. Mozart, and Beethoven (among others). Flesch's account resembles Mozart's legislative approach to a proper reading of the musical signs, albeit with a historical, inter-textual dimension. Tellingly, Flesch reads ornaments as components of existing works, rather than as elemental tools of a configurable musical language – a point encapsulated by his description of performance as "the transformation of the dead letter into living feeling [...] the art of *reproduction*."[30] Flesch's metaphors of life, death, and resuscitation, further the case for romantic amnesia (the forgetting and revival of a historical language) as a fundamental operation of classical music performance.

Certain bodily practices that in the 18th century were considered ornaments, later accrue meta-meanings within the German idealist traditions. For example, the practice of left hand vibrato, which in Geminiani's manuals appears as an ornament with specific affective meanings, in Flesch's treatise is an external sound manifesting "the deep feelings which subconsciously slumber in our souls."[31] This demonstrates the way in which aspects of ornamentation and extemporization peel off from their original affective meanings and tasteful expressions, becoming part of the bodily apparatus, and externalizing the performer's subjective interiority. Shards of historical knowledge and meaning are in this way buried, embedded in alternative epistemological/ideological paradigms, and resurfaced in the unconscious, reflexive movements of present

[30] Carl Flesch, *The Art of Violin Playing Volume I*, trans. Frederick H. Martens (New York: C. Fischer, 1939), 1.
[31] *ibid*, 20.

performers.

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Throughout the later parts of my dissertation, I draw upon bodily thinking as a complementary term to Christoph Wolff's elaboration of JS Bach's phrase, "musical thinking" (*musikalisch denken*), which Wolff uses to refer to a kind of abstracted study of composing, parsed in terms of form, order, and the connection of parts. By differentiating musical and bodily thinking, I point to the ways in which violinists and pedagogues began to abstract and formalize the body – its movements and parts – as an autonomous structure akin to the musical work. This separation also marks the body as a means of transmitting historical *Geist*. As Flesch writes, "Tell me with which fingers you play, and I will tell you whose spiritual and intellectual child you are,"[32] indicating the way in which spirit and mind are molded, developed, and transformed in the passage of knowledge between bodies.

0.4 Chapter Summary

Background

Each chapter is organized around a different set of figures and texts, mostly (but not exclusively) written and compiled by violinists. In the cases of chapters one, two, and five, I set up comparisons between figures: Tartini and Geminiani, Galeazzi and Mozart, and Flesch and Kolisch. By positioning these figures next to each other, I draw attention to dialectical oppositions within their thought and practices which play out the multiple stories in this dissertation: tensions between practice and theory in instrumental study; the

[32] Carl Flesch, *The Memoirs of Carl Flesch* (Boulogne: Harlow, 1973), 136.

rationalization and abstraction of the body; or the roles of taste, interpretation, listening, and analysis in performance. These comparisons reveal some of the competing impulses in the progression of performance pedagogy which, throughout the 19th century, become dominated by the codified, vocational ends of Conservatoire methods.

The genealogical nature of this survey means that, while charting this dominant narrative of the rationalization and spiritualization of practice, I also point to the missing links and connections: strains of Enlightenment empiricism running through the work of Tartini, Galeazzi, and Helmholtz, for example, or the different sensitivities of listening expressed by Kolisch and Adorno, who were interested in the radical music of their time, against Flesch, who sought artistic renewal through canonical works. These stories co-exist throughout each historical moment into the present, revealing the continuing negotiations of discipline and experimentation which guide and frame pedagogical approaches to teaching the violin.

Chapter One: *Theories and Pedagogies of Taste*

Chapter One examines music and treatises by two contemporaneous Italian violinists, Francesco Geminiani and Giuseppe Tartini, providing foundational context for the eventual dissociation of bodily discipline from musical composition and improvisation. I look, in particular, at the role that taste plays in these violinists' theories and pedagogies. Taste was a central concept for 18th-century philosophies of art, which were concerned with sensation/perception (*aesthesis*) over and above aesthetic judgments about particular works of art. Geminiani and Tartini understood taste as a means for mediating between one's individual imagination, and the rules for composition,

improvisation, and performance, which would structure that imagination. This mediating role of taste held together practices of musical communication, affect, sociability, and patronage.

While the topic of taste might seem tangential to the dissertation's ultimate focus on the body and sensorium, I argue that it underscores the importance of social history for the eventual codification of musical aesthetics, and the subsequent shape of bodily discipline. That is, Geminiani and Tartini's treatises respond to social expectations for music, and represent early steps in the circumscription of rules for musicians' engagement within these expectations. Their differing understandings of the role of taste manifest in their variable configurations of instrumental study—as a practical art, or as natural science & philosophy. For Tartini, taste might be explained through universal, scientific knowledge, whereas Geminiani focuses on its cultural specificity within the elite world of patronized music-making.

Geminiani's more practical vision begins to dominate pedagogical approaches beyond the 18th century, as prescriptions for bodily practice become more rationalized and idealized. The concept of taste mainly concerned a performer's faculties, or powers of mind, such as imagination and understanding. At the turn of the 19th century, the shift towards pedagogies of the body largely occluded critical discourse around taste, as canons of musical works effectively circumscribed the discipline. However, the performer's body became a repository of *Geist* (i.e. mind and spirit), as shared disciplinary frameworks linked bodies across history. As performance pedagogy and practice turned away from judgments of taste, musicians came to understand the body as a medium binding them to older ways of knowing, doing, and feeling.

Chapter Two: *Mediations Between Mind and Body, Notation and Performance, Theory and Practice*

Chapter Two follows the comparative method of Chapter One, reading treatises by two violinists active in the latter half of the 18th century: Leopold Mozart (1719-1787) and Francesco Galeazzi (1758-1819). Mozart develops Geminiani's pedagogical project, focusing on the practical aspects of music-making; Galeazzi followed Tartini, bridging practical instruction and speculative theory. Mozart's *Versuch einer gründlichen Violinschule* (1756) hones in on questions of score-reading and bodily discipline. Galeazzi's *Elementi teorico-pratici di musica* (1791/1819), by contrast, folds violin playing into a broader understanding of music that encompasses considerations of music history, theory, and composition.

Mozart's treatise filled a gap in 18th-century German pedagogical literature—that of a practical manual on elementary issues of violin-playing, identified by the German music critic Friedrich Wilhelm Marpurg in his *Historisch-kritische Beyträge*.[33] Galeazzi, on the other hand, attempted to singlehandedly outline something approaching the entire historical, theoretical, and practical project of European art music—a project that, compounded by his political exile, left him destitute. Both musicians' treatises were intended to serve a fuller accounting of the pan-European cultural project of classical music, organizing the knowledge, imaginations, and bodies of the individuals working within its frame.

Galeazzi's broadly synthetic view aims to integrate elements of composition and

[33] Leopold Mozart, trans. Editha Knocker, *Versuch einer gründlichen Violinschule* (Oxford: Oxford University Press, 1948), 7.

performance, theory and practice, at a time in which these disciplines were becoming more specialized and isolated. In his efforts to bring these elements together, Galeazzi uses mathematical diagrams to map the body and instrument, or to create combinatorial aids for inventive composition and improvisation. Mozart shies away from these elaborate applications of theory, instead aiming to legislate the proper reading of musical notation.

Like Tartini, Galeazzi viewed music as a discipline that encompassed both theoretical & practical knowledge, taking as its object both nature & art. In this regard, Galeazzi's empirical and speculative research on intonation and the nature of dissonance is a neglected medial point between Tartini's treatise on harmony and Helmholtz's *On the Sensations of Tone*. Another of Galeazzi's neglected contributions is his identification of the musical *idea* as a malleable motif, whose expert handling could build larger musical forms. In his writing on counterpoint, Galeazzi points to the ways in which schematic practices of the 18th century—like the fugue and fugal style—laid the groundwork for the 19th-century discourse of ideas and idealism. For Galeazzi, the musical idea existed beyond the media that represent it—that is, beyond bodies, instruments, and notation.

The fact that the musical idea – this seed for later understandings of absolute, instrumental, & formal musical thinking – can be traced back to an obscure violin professor, becomes significant in later chapters on topics of the 19th and 20th centuries. Musicologist Holly Watkins has pointed to the ways in which composers and theorists like Marx, Schoenberg, and Schenker linked metaphors of musical and spiritual "depth" in the Austro-German tradition to notions of form, contrapuntal rigor, and motivic

economy.[34] For Marx and Schoenberg, the "idea" conveyed spiritual, historical, and intellectual depths, which were to be expressed through the formal becoming of the musical structure; for Galeazzi, the practice of notating and handling musical ideas involved more practical elaborations, which could be taught through schematic templates and heuristic tools. The proto-sonata form that Galeazzi described in his treatise was not an expression of a subjective, psychologized becoming, but rather, in his words, "nothing other than fugal style turned into greater perfection and highly ornamented."[35] Galeazzi's earlier formulation of the idea, as well as its relation to fugal elaboration and sonata form, illuminates this pre-history of idealism without any claims to subjective depth, as in German musical culture.

Chapter Three: *Contrapuntal and Classical Orders*

Chapter Three analyzes violin music and treatises which bridge the 18th-century rationalization of taste and the institutionalization of bodily discipline at the Paris *Conservatoire* (est. 1795). Continuing from Chapter Two, I argue that Leopold Mozart's precise prescriptions for the bodily execution of violin-playing paved the way for abstracted understandings of bodily technique in the pedagogical treatises of violinists Bartolomeo Campagnoli (1751-1827) and Pierre Baillot (1771-1842). I demonstrate the ways in which abstracted templates for bodily technique in fact became building blocks for the composition of virtuosic violin pieces, while also representing a loss of fluency in older traditions of fugal and partimento composition/improvisation.

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[34] Holly Watkins, *Metaphors of Depth in German Musical Thought: From E. T. A. Hoffmann to Arnold Schoenberg* (Cambridge: Cambridge University Press, 2011).
[35] Francesco Galeazzi, *The Theoretical-Practical Elements of Music*, 355.

I bring my readings of these treatises to bear on my analyses of sonata movements by Arcangelo Corelli, Geminiani, Tartini, and J.S. Bach, which were collected in a 1798 anthology by the French violinist Jean Baptiste Cartier, and dedicated to the conservatory in Paris. Through these comparative analyses, I illustrate the pedagogical shift from the unified practice of performance, improvisation, and composition, to the separation of composition from more determined formulations of virtuosic, bodily practice. In contrast to the movements collected in the Cartier manuscript, Campagnoli's solo violin fugues sit somewhere between an emergent bravura tradition of violin-playing and the 18th-century partimento fugue tradition. Campagnoli is less fluent in his employment of partimento fugue, substituting virtuosic, violinistic figurations for a sophisticated elaboration of fugal subjects.

I read Campagnoli in dialogue with the Paris *Conservatoire* methods, which in contrast to the 18th-century Italian partimento pedagogy, began teaching performance and composition as distinctly separate disciplines. Pierre Baillot's *L'art du Violon* (1835), for example, contains exacting prescriptions for bodily postures and positions – a method that musicologist Kailan Rubinoff links to the *Conservatoire*'s military-inspired adherence to bodily discipline and administrative hierarchy.[36]

In sum, these sources—the French school's prescriptions for bodily forms and Campagnoli's exhaustive collection of bodily techniques—point to a new pedagogical order: one which replaced fluency in partimento and fugal composition with a closer attention to bodily discipline and virtuosity. Like Cartier's collection, Parisian methods often referred to anthologies of musical works—their publishing trend being both a cause

[36] Kailan Rubinoff, "Toward a Revolutionary Model."

and symptom of the further classicization of musical culture. The *Conservatoire* was instrumental in staffing orchestras which performed canonic works of the past. In this period, 18th-century pedagogies were subsumed by the ideological apparatus of the modern conservatory. Performers ceased to compose and improvise the majority of their repertoire; debates around the domain of taste and imagination gave way to a classical order organized around disciplinary hierarchies and historical canons.

Chapter Four: *Musical Interpretation and the Metaphysics of Tone*

Congruent with the 19th-century abstraction and rationalization of bodily discipline throughout the 19th century was the idealization of individual expression. The more determined bodily practice became—and the more it was separated from the canon of musical works—the more clearly a performer's interpretation might manifest their emotional inner world. Chapter Four looks at the effects of this nascent idealism on 19th-century German performance practice and pedagogy through the work of violinist and director of the Berlin *Hochschule*, Joseph Joachim.

I argue that Joachim's idealist paradigm, founded upon earlier Italian and French pedagogies, also covered over historical knowledge. Together with Andreas Moser, Joachim presented a carefully curated picture of his synthesis of older styles—his use of the Paris *Méthode* to correct deficiencies in his bodily technique, or his adoption of the Italian *bel canto* style. In Moser's words, Joachim "wrought in his own sphere what the great creative geniuses of Germany did, who borrowed beautiful musical form from Italy

and imbued it with German spirit."[37] In this idealized account, Joachim took the material and formal frameworks of other national schools and imbued them with elevated and intellectual, Germanic *Geist*. However, within this dialectical sublimation, certain material histories—such as the 18th-century improvisation and composition of counterpoint—were obscured, and replaced by a language of transcendentalism.

Reading Joachim and Andreas Moser's *Violinschule*, I point to pivotal shifts in aesthetics and performance practice. These shifts include the consolidation of the performer as an interpreter of a carefully curated canon of Austro-German composers, whose works were evaluated in terms of their large-scale forms, thematic developments, and harmonic structures. The performer-as-interpreter was expected to have an expansive knowledge of music history and theory, as well as a secure bodily technique, in order to aid the execution of their interpretations. The domain of performers' expressive freedoms moved away from questions of taste, ornamentation, and improvisatory embellishment, and towards more targeted employments of phrasing, timing, *Ton* and timbre (*Klangfarbe*).

I contrast Joachim's ideal language of *Ton* to the empirical experiments with tone performed by Tartini and Galeazzi in the 18th century – an empiricism that I also connect to Helmholtz's research in his *Tonempfindung* (1862). Tartini's *terzo suoni* formed the basis for his theory of harmony. However, in Joachim's history, Tartini is described as a founding figure of the Italian violin school, molded in the image of the Romantic, lyrical performer, and divorced from his Enlightenment approach to psychoacoustic research.

My analysis of Joachim's recordings of movements from J.S. Bach's Sonatas and

[37] Andreas Moser, trans. Lila Durham, *Joseph Joachim: A Biography (1831-1899)* (P. Welby, 1901), 240-241.

Partitas for solo violin point to a collision of his idealist history and aesthetics with his inherited material practice. Joachim's performances of Bach employ virtuosic violinistic techniques, borrowed from Italian and French *bravura* traditions. However, according to Joachim and his students, the material means of Italian and French violinists were transcended by the spiritual qualities of Bach's polyphony. I argue that Joachim's use of these violinistic techniques was in fact a crucial effect in performing the transcendental qualities of Bach's works: the anachronistic quality of their virtuosic bombast, superimposed on Bach's use of baroque dance forms and counterpoint, only heightened the mystique of the composer's musical writing.

Chapter Five: *The Instrumental Language of Performance*

In his posthumously published draft on musical performance, Theodor Adorno contrasts performers' attention to sonic beauty with considerations of the musical work's "subcutaneous,"[38] structural elements. This antithesis posits what musicologist Holly Watkins describes as a "metaphor of depth"[39] – the German romantic understanding of musical form as holding layers of spiritual (masculine) innerness, against the surficial (feminized) nature of tonal production. What goes unsaid in Adorno's draft is the extent to which his thinking around sound and structure borrowed not only from music theorists and composers, but from performers who were themselves influential in shaping musical aesthetics in the 20th century. For instance, the violinist Rudolf Kolisch – with whom Adorno's monograph was originally intended to be co-written – through his writing and

[38] Anthony Gritten, "Cooking up a Theory of Performing," from *Adorno and Performance*, ed. W. Daddario and K. Gritzner (UK: Palgrave Macmillan, 2014).
[39] Watkins, *Metaphors of Depth*, 1.

teaching participated in the modernist project of dissociating sound and the body from musical structure.

Chapter Five brings the writings of Carl Flesch, Kolisch, and Adorno together, making the case that these texts illustrate a less studied aspect of musical modernism: the rationalization of not only compositional structures, but the bodies reproducing them. Kolisch's contradictory position – as a performer who hoped to transcend his own inherited corporeal traditions – marks a culminating point in the schism between considerations of material practice and the abstract, formalist aesthetics of the 20th century. Kolisch's aim to objectively unfold the structures of the musical work, even denying the role of his own subject position and bodily technique in shaping this music, illustrates the extent to which performing bodies were abstracted and erased within romantic-modernist aesthetic discourse.

By contrast, Flesch insists on the possibility that the performer still might find ways to merge their individual *Geist* (mind/spirit) with historical works and traditions. Kolisch, who found himself personally and professionally associated with the radical aesthetics of Arnold Schoenberg and the Second Viennese School, stakes out his own unique position by insisting on the total excision of performers' subjectivity from so-called "objective" matters of musical interpretation. In both accounts of performance, the subject is analyzed and schematized: the appropriate positions, movements, and channels for the play of the performer's *Geist* through the body and the musical score are prescribed in painstaking detail.

Adorno's unpublished monograph on performance contains some of the philosopher's most vivid descriptions of bodily performance. However, he never

manages to flesh out what he calls "instrumental language"—the sonic, corporeal materials shaped by the performing subject.[40] Adorno's inability to speak to this instrumental language remains an unresolved blind spot in his theory of performance; his completed draft largely ignores the question of how such a corporeal, sonorous, medium might realize the analytical "x-ray image of the [musical] work."[41]

My reading of Carl Flesch's treatise on violin playing details what Adorno cannot account for: a dialectics of "spirit and matter, subjective and objective,"[42] which plays out through the body's relationship to sound, rather than through notation, compositional techniques, and considerations of form. Whereas Adorno's philosophy is premised on the idea of music's "autonomy"—the immanent, non-referential problems of musical composition—, Flesch posits another semi-autonomous medium: the "general" technique of the performer. The performing body, like the musical work, has its own immanent technics, formal and historical determinations. While its purpose is never severed from the interpretation and reproduction of the composition and composer's *Geist*, it is clear that this bodily discipline is in and of itself a medium for the transmission of historical genius.

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Taken as a whole, this dissertation shows how the media of compositional structures and performing bodies began to develop independently, rationalized as distinct disciplines since the late 18th century. Throughout this history of performance, the primary question of these thinkers largely remains the same, despite changing aesthetic

[40] Adorno, Theodor W., trans. Weiland Honban, ed. Henri Lonitz, *Towards a Theory of Musical Reproduction: Notes, a Draft and Two Schemata* (New York: Wiley, 2014), 56.
[41] *ibid*, 1.
[42] Stefan Knapik, "The Master(ed) Violinist," 570.

paradigms of taste, execution, interpretation, or reproduction. That is, each of these texts endeavors to answer the question of how musicians should mediate between individual genius, collective understanding, and the historical traditions undergirding the discipline. In all cases, this tradition puts up significant challenges to the individual's free and personal expression, as well as to creative and experimental approaches which lie outside historical circumscriptions of taste and discipline. At the same time, this disciplinary history is what creates the forms and structures stewarding a sense of spiritual & intellectual inheritance and continuity, out of which the shape of the individual subject might emerge.

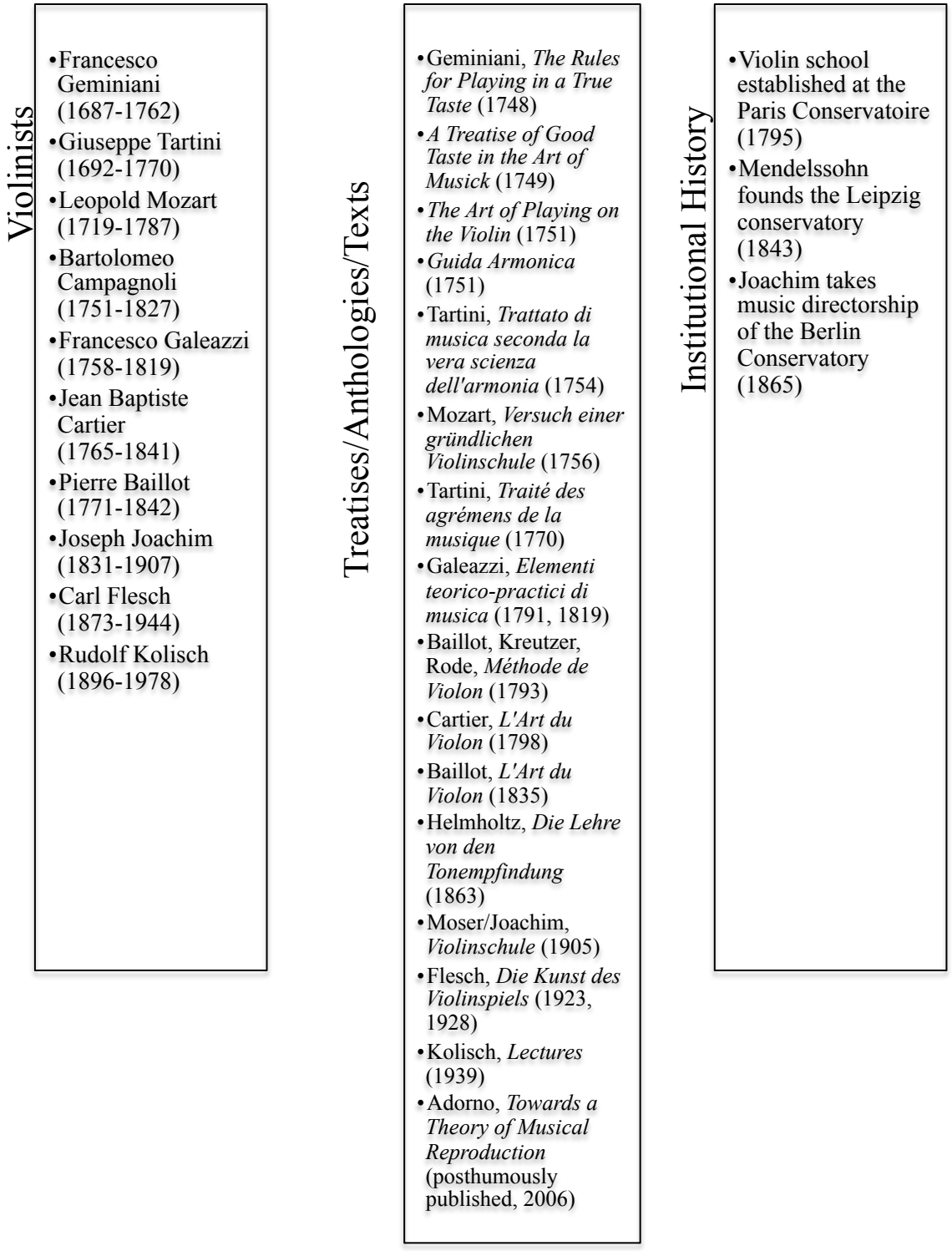

Figure 0.1: Timeline of Violinists, Treatises, and Institutions

CHAPTER 1

Theories and Pedagogies of Taste

Francesco Geminiani and Giuseppe Tartini were born within five years of each other, Geminiani in Lucca in 1687, and Tartini in Pirano in 1692. Geminiani moved to London in 1714 and became a founding member of the Masonic lodge known as the Philo-Musicae et Architecturae Societas.[43] Although he capitalized on his alleged tutelage with Arcangelo Corelli to secure his musical authority in London, he inevitably drew influences from his associations with English intelligentsia as well—in his *Treatise of Good Taste in the Art of Musick*, he compares the relative state of architecture and music in England. Furthermore, his Italianate musical adaptations of Scots, Irish, and Welsh folk tunes reflect his travels through Britain in search of patronage, as well as the uneasy musical negotiations that resulted from his migration.

Tartini remained in Italy, serving as solo violinist and concertmaster at the Basilica of Saint Anthony in Padua from 1721 to 1765.[44] He received his early education at the Franciscan *Collegio dei padre delle scuole Pie*, which accounted for his proficiency in arithmetic and geometry, and his understanding of music as a part of the medieval quadrivium.[45] His practical education as a violinist came from outside the university—Charles Burney suggests that Tartini's violin-playing drew inspiration from violinist Francesco Maria Veracini.[46] As musicologist Pierpaolo Polzonetti points out, Tartini's

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[43] Enrico Careri, *Francesco Geminiani* (Lucca: LIM, 1999), 15.
[44] Polzonetti, "Tartini and the Tongue of Saint Anthony," 430.
[45] Lev S. Ginzburg, *Tartini: His Life and Times* (Neptune City: Tfh Publications, 1981).
[46] Burney, Charles, *A General History of Music, from the Earliest Ages to the Present Period. To Which Is Prefixed, a Dissertation on the Music of the Ancients*, 2 ed., (London: T. Becket, J. Robson, and G. Robinson, 1789), 564–565.

participation in academies organized by the astronomer Gianrinaldo Carli marked a shift in his writing and compositions in the 1740s, during which period he began to write about theory and practice in a way that "embraced the paradigms of universality and nature."[47] In this way, Tartini brought his learning into accordance with the Enlightenment desire to find "universality in language and music."[48]

My readings of Geminiani and Tartini's treatises in this chapter examine their different aims for instrumental study: as a means of cultivating practiced fluency, or as a means of acquiring theoretical and systematic knowledge. What is at stake in their differing visions is not only the disciplinary identity of musical performance, but also cultural and epistemological circumscriptions of violinistic practice. I suggest that their assessments of the methods and aims of musical performance are closely bound to their understandings of musical taste.

Taste was a central concept for 18th-century philosophies of art, which were concerned with sensation/perception (*aesthesis*) over and above aesthetic judgments about particular works of art. While their own explicit references to contemporary philosophical debates about aesthetics are few, Geminiani and Tartini were dealing with similar questions about the nature of taste, genius, imagination, and judgment as contemporaneous philosophers such as David Hume, Joseph Addison, Edmund Burke, Denis Diderot, and Jean-Jacques Rousseau. Geminiani's understanding of taste is similarly concerned with beauty as a play of mental faculties; he frames tasteful judgments of beauty as balancing between the performer's genius/imagination and understanding of rules, which "are necessary for a moderate Genius, and may improve

[47] Polzonetti, 435.
[48] *ibid*, 430.

and perfect a good one."[49] Immanuel Kant, drawing upon and synthesizing 18th-century aesthetic philosophy, understood judgments of taste to be premised on a universally communicable feeling: pleasure, as the free play of the imagination and understanding.[50] Tartini and Geminiani, in their treatises, attempt to externalize the rules of taste in judgments of musical tones and techniques. For Geminiani, this involved laying out rubrics for good taste in the galant style. Tartini, on the other hand, looked to describe an overarching theory of universal taste according to nature (opposed to the artifices of culture).

Geminiani and Tartini's practical treatises—on topics of ornamentation, embellishment, and violin playing—delimit frameworks for listening, understanding, and performance. Their fluid melding of multiple bodily and musical techniques serve as a kind of prehistory to bodily abstractions of the 19th century, setting some of the epistemological coordinates for later performance pedagogy. These treatises present reformulations of earlier knowledge presented in volumes such as Christopher Simpson's *The Division-viol* (1665) or Giulio Caccini's *Le Nuove Musiche* (1602). However, along with other treatises of the 1750s (including those by CPE Bach, Joseph Joachim Quantz, and Leopold Mozart), Geminiani and Tartini's practical treatises represent some of the first of their kind, written explicitly for advanced players, and addressing the learning and handling of the instrument.

I also examine these violinists' more speculative works, including Tartini's treatise on harmony and Geminiani's *Guida Armonica*, on harmonic modulation.

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[49] Francesco Geminiani, *The Art of Playing on the Violin*, ed. David Boyden (London: Oxford University Press, 1951 [1751]), 6.
[50] Immanuel Kant, *Critique of the Power of Judgment*, trans. Paul Guyer and Eric Matthews *(*Cambridge: Cambridge University Press, 2000).

Geminiani—the more practically-minded of the two—follows the algorithmic potentials of composition by schematizing innumerable sequences of chords. In this, Geminiani follows earlier musical forays into the power of the combinatorial imagination by 17th-century theorists like Marin Mersenne, albeit under the guise of a pedagogical treatise for composers. Tartini's treatise on harmony is more explicitly theoretical, folding his mathematical proofs into broader claims about musical affect and expression, as well as his idealization of the unified theory and practice of ancient Greek music.

I draw attention to a particular philosophical divergence between Geminiani and Tartini regarding the question of taste. Whereas Geminiani's aim is to sketch the rules for good taste in the performance and embellishment of galant music, Tartini sets his sight on the possibility of more universal principles of taste according to nature. That is, according to Tartini, knowledge of music's physical, mathematical, and affective natures might be observed and learned through exceptional moments of instrumental study and performance. I examine the ways in which he brings this scientific mysticism to questions of acoustics, ornamentation, melody, and poetry.

1.1 Geminiani on Taste, Affect, and the Combinatorial Imagination

Geminiani's two treatises on ornamentation are titled *The Rules for Playing in a true Taste* (listed as his Opus VIII and likely published in 1748) and *Treatise of Good Taste in the Art of Musick* (1749). Following Geminiani scholars Marion Emmett McArtor and Enrico Careri, I will refer to *The Rules for Playing in a true Taste* as Taste 1, and *Treatise of Good Taste in the Art of Musick* as Taste 2. For Geminiani, a "true," "good," or "just" taste (the terms appear interchangeable for him) is primarily

demonstrated through one's ability to ornament melodies and thorough bass. The pedagogical strategy of Taste 1 is to provide ornamentations on four Airs, which the student may learn and pick up by inference. Taste 2 takes Scottish folk melodies, attributed to David Rizzio, and seeks to "improve the Melody of *Rizzio* into Harmony, by converting some of his Airs into two, three, and four Parts."[51] This improvement of melody to the "highest Degree of Pleasure" found in harmony "required an equal Mixture of Imagination and Judgment."[52] Geminiani's tasteful "improvement" of Rizzio's melodies are an improvement of an improvement; Rizzio himself—according to Geminiani—"civilize[d] and inspire[d]" the "intirely rude and barbarous"[53] state of Scots' melody in his own time.

In addition to Taste 1 and Taste 2, this section looks at Geminiani's *The Art of Playing on the Violin* and *Guida Armonica*, outlining the ways in which his rubrics of good taste mediate between bodies, musical signs, and affects. My reading, following Geminiani (and his contemporaries), describes expressions of taste along a spectrum between understanding and imagination. Geminiani describes an understanding of rules as bringing individual genius into accord with the social and artistic expectations of others. Imagination, on the other hand, was during this period understood to be closely aligned with permutational thought/practice, and could be applied not only in composition, but in ornamentation, variation playing, and freer forms of extemporization. Given the close links between performance, improvisation, and composition described by Geminiani, one could think of this tasteful balance—between a rule-abiding performance

[51] Francesco Geminiani, *A Treatise of Good Taste in the Art of Musick* (London: 1749), 1.
[52] *ibid.*
[53] *ibid.*

and imaginative individuations—as circumscribing the overall coordination of bodily techniques with forms of mental creation and re-arrangement.

Geminiani's Taste 1 and Taste 2 provide instructions for the playing of both continuo parts (harpsichord and violincello) and also melodic instruments: violin, transverse flute, and in some cases the violincello. Furthermore, Geminiani gives instructions about the proper interplay between the melody and accompaniment, including the following advice: "Whenever the Upper Part stops, and the Bass continues, He who accompanies must make some Melodious Variation on the same Harmony, in order to awaken the Imagination of the Performer, whether he Sings or Plays, and at the same Time to give Pleasure to the Hearer."[54] A tasteful performance balances the performer's imagination with the audience's pleasure—Geminiani here suggests the pivotal role that continuo playing plays in supporting this.

Geminiani's instructions on melodic playing, and specifically on ornamentation, reveal his attempts to codify specific associations between bodily techniques, affects, and notated musical signs. The preface of Taste 2, for example, collects "all the Ingredients of a good Taste,"[55] a list of fourteen ornaments (later reprinted in his violin treatise).
In addition to notating thirteen of the fourteen ornaments, he includes signs above each note, as shorthand specifications for the ornament. Furthermore, Geminiani provides textual descriptions indicating the rhythmic and affective variability of each ornament. For example, of the "Beat": "if you play it quite soft, and swell the Note, it may then denote Horror, Fear, Grief...By making it short and swelling the Note gently, it may

[54] Geminiani, *The Rules for Playing in a True Taste*, (London: 1748), paragraph 4 of Preface.
[55] *ibid*, under "Explanation of the *Acciaccature.*"

express Affection and Pleasure."[56]

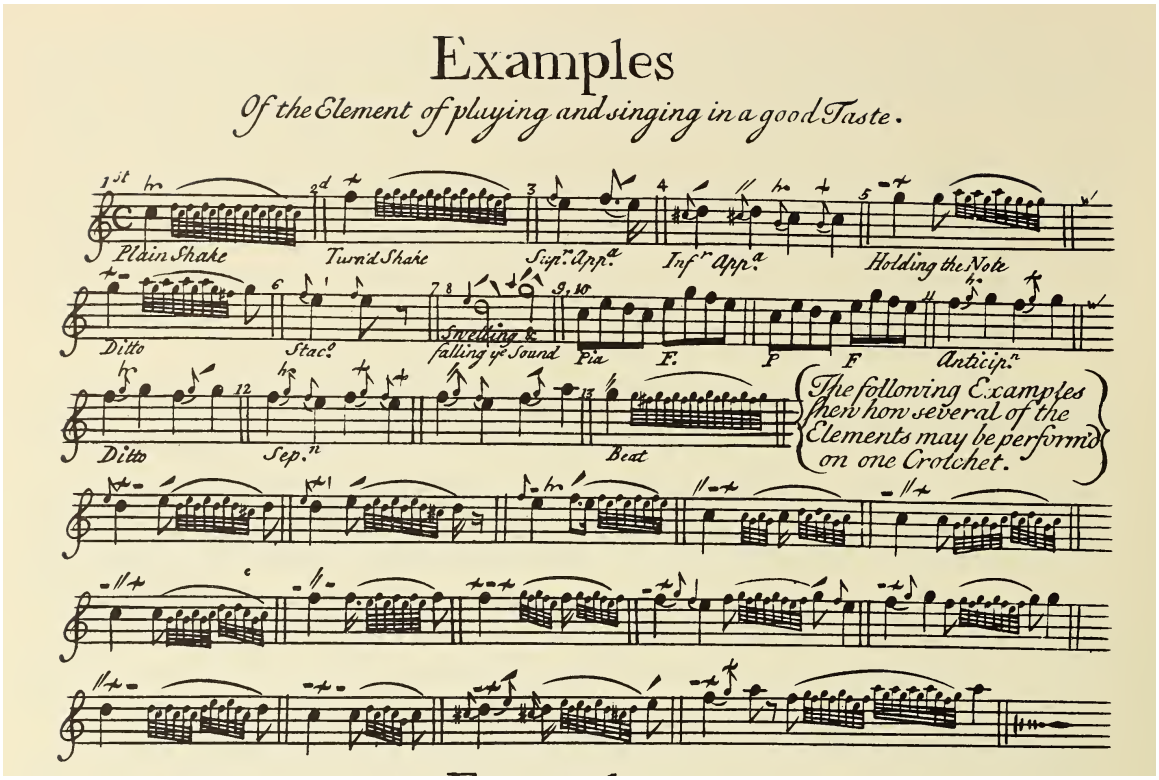


Figure 1.1: "Ingredients of Good Taste," from Francesco Geminiani *Taste 2* (1748)

The close shake—what we commonly refer to now as vibrato—is by Geminiani's admission impossible to notate: "This cannot possibly be described by Notes as in former Examples."[57] Instead, he describes the physical movement in detail:

> To perform it, you must press the Finger strongly upon the String of the Instrument, and move the Wrist in and out slowly and equally, when it is long continued swelling the Sound by Degrees, drawing the Bow nearer to the Bridge, and ending it very strong it may express Majesty, Dignity, &c. But making it shorter, lower and softer, it may denote Affliction, Fear, &c. and when it is made on short Notes, it only contributes to make their Sound more agreable and for this Reason it should be made use of as often as possible.[58]

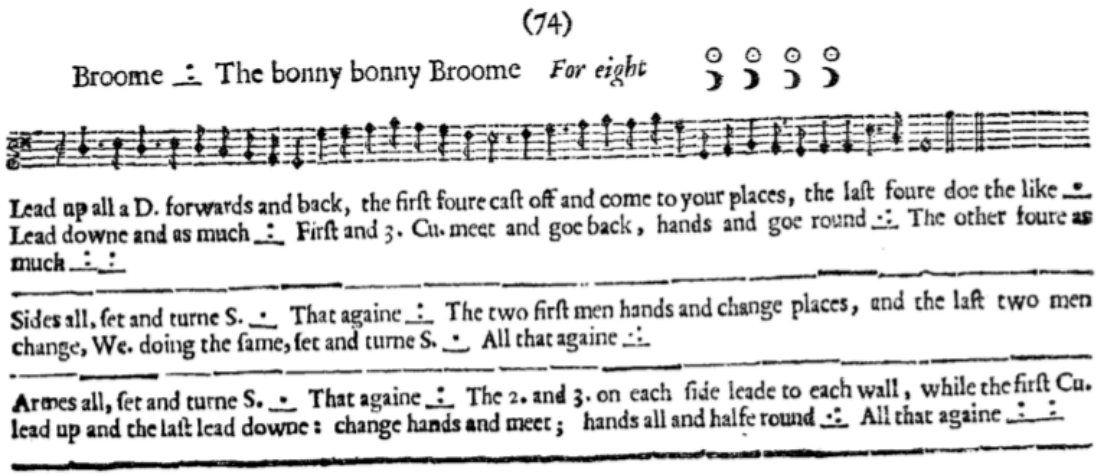
[56] *ibid*, 3.
[57] Francesco Geminiani, *The Art of Playing on the Violin*, 8.
[58] *ibid.*

Geminiani points to the mechanism of the close shake as involving a crucially timed coming together of the right and left hands. When the left wrist has been activated, the bow arm (right arm) can change its affect by drawing nearer to the bridge, or making the sound softer. Like the beat, the close shake can express a range of affects, which depend in large part on the timed coordination of the left wrist's oscillation and the bow.

Geminiani's ornaments have polysemic correspondences with affects—individual ornaments can express several affects, and multiple ornaments can potentially express the same. In both Taste 1 and Taste 2, he uses the shorthand signs appearing in the "ingredients" to notate suggested embellishments on Scots, Irish, and English tunes, which he harmonizes in various sonata and variation movements. As these are nominally treatises on good taste in ornamentation, it is unclear how literally a performer or student is expected to read them. The fact that they serve as examples of ornamentation in good taste, which the student presumably will pick up by study and inference, suggests that they are a jumping off point for the reader's own imagination, rather than a composition to be followed to the letter (just as Geminiani's embellishments and variations depart from the original tunes).

In Taste 2, Geminiani weaves together two airs, "The Broom of Cowdenknows" and "Bonny Christy" into a four-movement Sonata for two violins and continuo bass. Geminiani's liberal collage and adaptation of these tunes was typical in his time, and not only amongst Italian musicians seeking to bring their own instrumental expertise in relation with British folk traditions. The fragmentary history of "The Broom," for example, demonstrates the employment of folk songs through various social and

historical contexts.[59] An earlier published version of the song appears in John Playford's *The English Dancing Master* (1650/1651). In Playford's collection, the song (number 74) is simply titled "Broome," and it includes text instructions and notations for dancers.


(74)

Broome .:. The bonny bonny Broome *For eight*

Lead up all a D. forwards and back, the firſt foure caſt off and come to your places, the laſt foure doe the like .:. Lead downe and as much .:. Firſt and 3. Cu. meet and goe back, hands and goe round .:. The other foure as much .:.:.

Sides all, ſet and turne S. .:. That againe .:. The two firſt men hands and change places, and the laſt two men change, We. doing the ſame, ſet and turne S. .:. All that againe .:.

Armes all, ſet and turne S. .:. That againe .:. The 2. and 3. on each ſide leade to each wall, while the firſt Cu. lead up and the laſt lead downe: change hands and meet; hands all and halfe round .:. All that againe .:.:.

Figure 1.2: "The bonny bonny Broome" from John Playford's *The English Dancing Master* (1651)

Geminiani's version of "The Broom" provides the Italian character marking, "Grave," and features an elaborated version of the melody in the first violin part. The second violin part contains accompanying countermelodies, often a third below the first, or varied diminutions of the melody in passages of sixteenth notes.

[59] In his article on the cultural politics of the *Dancing Master*, Keith Whitlock builds evidence for his argument that Playford's collection relied heavily on the work of playwright Ben Jonson, who used many dances throughout his masques. Whitlock makes further connections between Jonson's friend and fellow playwright, Richard Brome (also spelt Broom and Broome as in the "Broome" of Cowdenknows), suggesting that Brome might have been the unnamed "knowing Friend" who Playford cites in the introduction to his collection; Keith Whitlock, "John Playford's the English Dancing Master (1650/1651) as Cultural Politics," *Folk Music Journal* Vol.7 No.5 (1999), 559-560.

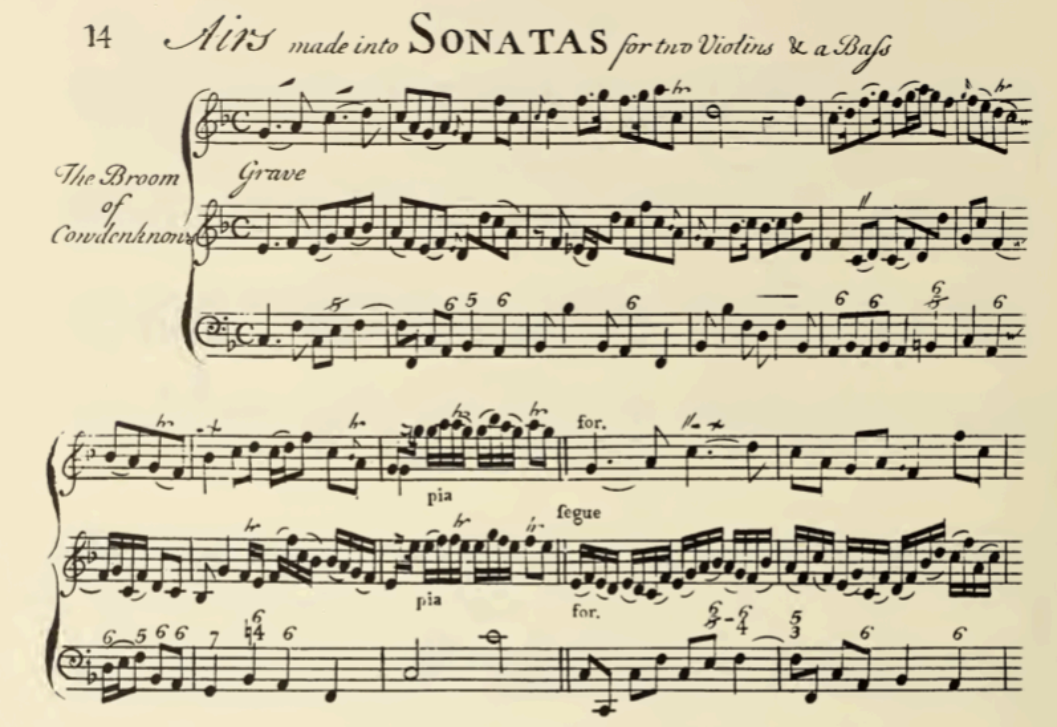


Figure 1.3: "The Broom of Cowdenknowes" from Francesco Geminiani's *Taste 2* (1748)

Throughout both violin parts (though especially the first), Geminiani notates examples of possible ornaments, including shakes, turned shakes, swells, beats, holds, and dynamic markings. Certain examples demonstrate combinations of ornaments, such as the first measure of the second melodic repetition, which combines a beat, hold, and turned shake on the second dotted quarter note. Given Geminiani's close association of ornaments and the affects which they express, the proper playing of this note might have been understood as a complex semiotic bundle perhaps conveying strength, resolution, and gaiety.

These examples demonstrate the affective potential of combinatorial practice, bringing together bodily execution, an understanding of possible meanings and

employments of the ornaments, and ingenious play.[60] Within 18th-century philosophy, imagination and combinatorial pursuits were thought to be closely intertwined, and in some cases nearly synonymous. Kaltenecker, in his essay on the 'fantasy principle' explains:

> Within the philosophical tradition, imagination holds an intermediate position between sensation and judgement. Sensation is dependent on the presence of an object, while imagination is able to create representations of absent objects, their mental images [...]
> For Voltaire, imagination was a *combinatoire*, and thus "the only means which allows us to assemble our ideas, even the most metaphysical ones"; active imagination seems 'to create more than merely arrange.'[61]

Voltaire here articulates the difference between the assembly of recalled ideas (memory) and a more creative imagination. Kant, in his *Critique of Judgment*, similarly links the production of aesthetic ideas to a free play of the imagination and understanding. Aesthetic ideas, which rely on intuitions (i.e. representations of the imagination) are opposed to ideas of reason, which rely on determinate concepts.[62]

The legacy of music as a part of the medieval quadrivium—consisting of

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[60] As I will touch on later, Geminiani's use of Scots and Irish tunes as examples for ornamentation raise the possibility that his understanding of the combinatorial potentials of embellishment was inspired by folk fiddlers and singers in these traditions.

[61] Martin Kaltenecker, "The 'Fantasy principle' : improvisation between imagination and oration in the Eighteenth Century," from *Beyond Notes: Improvisation in Western Music of the Eighteenth and Nineteenth Centuries*, ed. Rudolf Rasch (Brepols Pub, 2011), 19.

[62] "The subjective universal communicability of the kind of representation in a judgment of taste, since it is supposed to occur without presupposing a determinate concept, can be nothing other than the state of mind in the free play of the imagination and the understanding…"; Immanuel Kant, *Critique of the Power of Judgment*, 103.
"Now I maintain that this principle is nothing other than the faculty for the presentation of **aesthetic ideas**; by an aesthetic idea, however, I mean that representation of the imagination that occasions much thinking though without it being possible for any determinate thought, i.e., **concept**, to be adequate to it, which, consequently, no language fully attains or can make intelligible. – One readily sees that it is the counterpart (pendant) of an **idea of reason**, which is, conversely, a concept to which no **intuition** (representation of the imagination) can be adequate"; *ibid*, 192.

arithmetic, geometry, music, and astronomy—looms large in the 17th- and 18th-century Enlightenment. The understanding of music as combinatorial study is present in Marin Mersenne's *Harmonie Universelle* (1636), which devotes several pages to listing permutations of sets of notes. This practice is taken up in 18th century treatises by Mattheson, Schröter, or Heinichen;[63] and Werckmeister's *Harmonologia Musica* presents permutations of invertible counterpoint that "could be continued until the musical system returns to its original configuration, the progression of the voices recreating in microcosm the cycles of the planets."[64] David Yearsley explains this miniature recreation of cosmic motion as, for Werckmeister, "a prelude to the heavenly concert."[65] Combinatorial pursuits thus cut across both theological and rational/quasi-mechanistic understandings of music.

The eighteenth-century interest in the *Ars Combinatoria* casts new light on the pedagogical origins of the musical scale as the most common regimen of bodily discipline. Before its rebranding as a torture mechanism for aspiring musicians, the scale was a particular, imaginative elaboration of music's combinatorial possibilities. Geminiani's treatment of the scale in the first seven examples of his *Art of the Violin* demonstrates the pedagogical linkage of these exercises with bodily ones. Here, scales are presented in their "Diatonick and Cromatick Genera,"[66] with half steps notated with filled notes and whole steps notated with empty ones. Geminiani maps the performing body—specifically, the left-hand digits—onto the various scales. Example 1D distills the

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[63] Anthony Burr, unpublished "Letterbook for Mizler séance," presented at the Melbourne Museum by the Australian Art Orchestra Project.
[64] David Yearsley, *Bach and the Meanings of Counterpoint* (Cambridge: Cambridge University Press, 2002), 20.
[65] *ibid*.
[66] Geminiani, *Art of the Violin*, 3.

digital permutations of fingering on single notes:

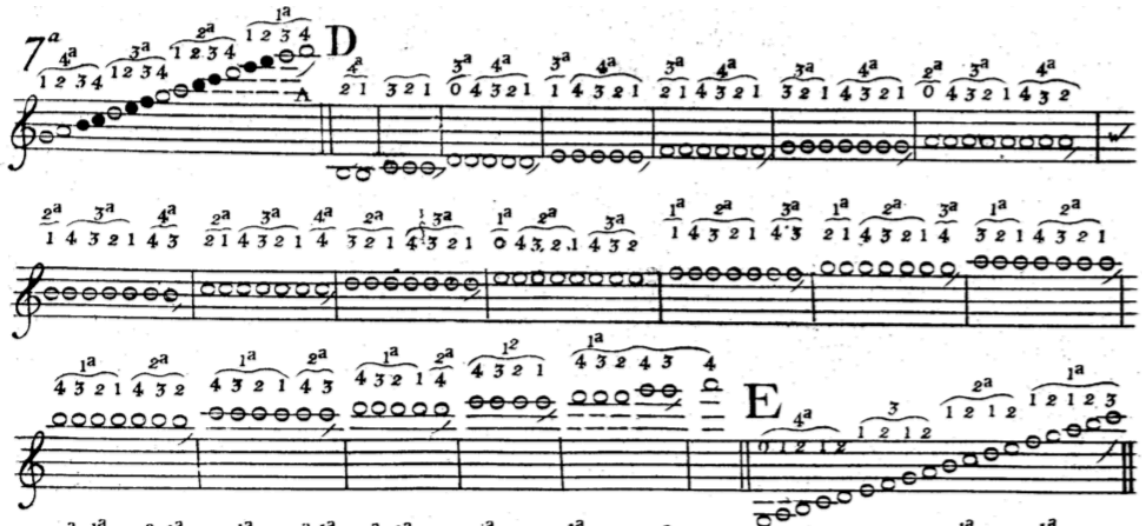

Figure 1.4: Example 1D from Geminiani's *Art of the Violin* (1748)

The next few examples continue to find permutations of fingerings on the same scales, before proceeding to permutations of chromatic scales, with different combinations of whole and half steps; the seventh example lists melodic scale patterns in intervals of thirds, fourths, fifths, sixths, tenths, as well as sequences combining different interval relations.

Geminiani's description of shifting as "Transpositions of the hand" reinforces the conceptual proximity of bodies and notes; they are both materials to be imaginatively recombined. The practice of mapping abstract musical systems on the body of course goes back to Guido's mnemonic device charting pitch names and modes across the palm of the hand. However, Geminiani is at the forefront of performer pedagogues whose eclectic pursuits become the blueprint for a bodily disciplinary practice regime; the increasingly unmusical nature of scales and scale systems prepare the ground for later

dissociations of bodily discipline from musical composition and improvisation.[67]

Throughout the rest of the treatise, Geminiani combines his more rationally-minded interest in combinatorial possibilities of fingerings, bowings, double-stops, and arpeggio and scale patterns, with a fluency in the galant style of *partimenti* and figured bass writing. These two elements—the rational and quasi-mathematic pursuit of cataloguing patterns, and the more craftsman-like art of composing musical material within a courtly musical language—create musical examples that tread the thin line between pedagogical pursuits and musical compositions.[68] The fluidity between instrumental and compositional skills is demonstrated through the manner in which his scale exercises morph into musical examples accompanied by figured bass.

One particularly interesting example in Geminiani's treatise is the fifteenth, which is meant to familiarize the violinist with reading sharps and flats. The musical composition moves quasi-chromatically through different scales, with a disregard for galant conventions of phrasing symmetry and tonal centers, although the figured bass writing fleshes out the harmony in an agreeable way. Geminiani's playing was in fact

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[67] Jim Samson, for example, has noted the movement from "continuo playing and figured bass" to "scale-based digital dexterity" as part of the trend in harpsichord and pianoforte pedagogy towards increasingly unmusical exercises; Jim Samson, *Virtuosity and the Musical Work: The Transcendental Studies of Liszt* (Cambridge: Cambridge University Press, 2007), 30.

[68] This line becomes more and more clearly delineated in violin treatises of the 19th century, as scale systems become tailored towards bodily virtuosity, having to do less with musical composition. The genre of the caprice and the bravura occupation with virtuosic scales and arpeggios as the substance of show pieces does seem to continue to blur the line between rational pedagogy and musical composition, although in most of these cases it seems to be a compositional mining of bodily virtuosity, which develops as part of an increasing stratification between activities of musical composition and the bodily disciplining of performers.

criticized for its "rhythmic and melodic irregularity, asymmetry of musical phrasing"[69] – perhaps an unfavorable interpretation of his musical sensibility, which, as evinced in his treatises, was stretched between a more esoteric interest in writing out permutations of bodies, harmonies, ornamentations, and variations, and a compositional grounding within the galant style, with its focus on playing to the tastes of the court. Geminiani's sometimes fraught relationship with patronage supports the competing occupation of his interests and musical skillset.[70]

Geminiani at his most esoteric and mechanistic surfaces in his treatise on harmony, the *Guida Armonica*, published between 1751 and 1753. Geminiani begins by noting the deficiencies in modulation in the work of violinist-composers Lully, Corelli, and Bononcini, proposing his own "just and extensive System of Modulation" to the "Science of Musick."[71] The body of the treatise is a collection of 2,236 harmonic fragments. Page numbers following each fragment direct the reader to another page of sequences that begins with the last chord of the previous fragment. As such, the compositional process becomes a mechanistic and, practically speaking, infinitely extensive copying out of progressions. Taking Geminiani at his word, it would seem that the composition of form (as dictated by harmonic progression) occurs to him as potentially the most mechanical aspect of musical practice—a kind of algorithm that could be plugged into the musician's body.

[69] Careri, *Francesco Geminiani*, 51.
[70] Careri notes that Geminiani wished "to avoid the limitations that regular service [to the court of Lord Essex]"; Careri, *Francesco Geminiani*, 21.
[71] Geminiani, *Guida Armonica* (London: 1751-1753), paragraph 5 of Preface.

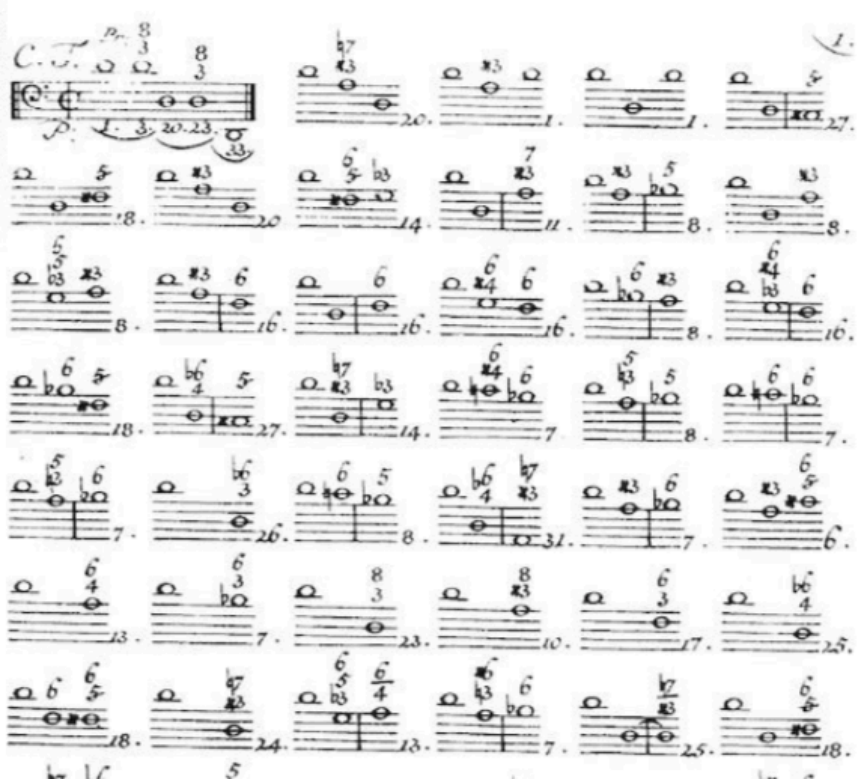

Figure 1.5: Harmonic fragments from Geminiani's *Guida Armonica* (1751-1753)

Geminiani's *Guida Armonica* is not as systematic or elegant as compositional devices such as C.P.E. Bach's *Einfall*—an algorithm that could compose six measures of invertible counterpoint.[72] However, it completes a picture of Geminiani's aesthetic education, in which humanistic judgments of taste are most visible in a performers' decisions involving ornamentation, variation, and thorough bass, and in which mathematical, mechanical processes cohere most vividly through the recombination of fingers, scales, and harmonic modulations. As Careri observes, the *Guida Armonica* was received with both curiosity and suspicion. An anecdote in Hawkins' *General History of the Science and Practice of Music* contains the following paraphrase of Geminiani's

[72] Yearsley, *Bach and the Meanings of Counterpoint*, 184.

book, provided in a dissertation by the musical Jesuit, Pere Castel: "...he found that any person able to read and write might by the help thereof become able to compose true, good, and well-modulated music...and that it is in reality a set of musical integers ready to be connected into a body."[73] Careri also observes that "The greatest (however perverse) originality of the treatise lies precisely in the notion that the collage of harmonical passages is theoretically endless and can by itself determine the musical form."[74]

The perversity that Careri is pointing to is that, while this treatise possibly represents the pinnacle of Geminiani's invention and imagination, it also expects the least from its reader. As such, this treatise violates one of Geminiani's own stated beliefs about good taste—that it should balance the performer's powers of imagination with those of the listener (or in this case, the reader). Musicologist Annette Richards has pointed to the manner in which the eighteenth-century instrumental fantasy involved a delicate balance between the performers' invention and common codes of listening through sonata form.[75] I am here suggesting that a similar dynamic plays out in the treatise genre; that the inventiveness of the author placed limits on the imaginative possibilities of the reader.

Geminiani's descriptions of the thick intertwinement of affects, notated signs, and improvisatory and compositional practices, outline something approaching a rubric of good taste in music. The inseparability of bodily and musical techniques furthermore points to a historical moment before the dissociation, abstraction, and rationalization of bodily discipline as a separate domain from questions of affect and imagination. The

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[73] Careri, *Francesco Geminiani*, 185.
[74] *ibid*, 183.
[75] Annette Richards, *The Free Fantasia and the Musical Picturesque* (Cambridge: Cambridge University Press, 2006).

diversity of skillsets presented in Geminiani's treatises provides a window onto 18th-century pedagogy as an evolving network of notated signs, thick affective and bodily descriptions, musical rules, and imaginative practices.

1.2 Tartini's Aesthetics of Nature

Geminiani's concern with taste is grounded in 18th century notions of art and sociability—for the most part his comments on aesthetics and the powers of human reason/imagination merely serve as preparatory remarks grounding his practical pedagogy. By contrast, Tartini weaves together remarks about music's theoretical and practical components in both his expansive *Trattato di musica secondo la vera scienza dell'armonia* (1754) and his more contained and practically-minded *Traité des agrémens de la musique* (1770), first published in French translation. Tartini scholar Sol Babitz suggests that the latter treatise on ornamentation was likely written before 1750 and widely circulated in manuscript form, given that Leopold Mozart's treatise (1756) heavily borrows from it.[76]

I triangulate some of Tartini's theoretical and practical instructions in these two treatises, arguing that they are bound together by his multivalent and sometimes contradictory claims about taste. In his *Trattato*, Tartini expresses a skeptical view of the galant tastes which undergirded his entire collection of earlier compositions (which I examine further in Chapter Three). He justifies this view by claiming that music was only a small part of a larger physical and harmonic science; and that the practice and study of music should be brought in accordance with what he imagined to be the universal

[76] Giuseppe Tartini, *Treatise on the Ornaments*, trans. Babitz, (Los Angeles: Early Music Laboratory, 1970), 1.

knowledge of this greater "physicoharmonic science."[77] The principle argument of the *Trattato*—that music's physical and mathematical properties describe and understand the natural world—grounded his conviction that musical practice should aspire to express the "truth of nature."[78]

The *Trattato* aligns Tartini with Arcadian Academy ideals of rescuing contemporary musical tastes from baroque tendencies, and instead returning to a neo-Platonic notion of music's affective powers as deriving from music's alignment with ancient poetry and meter. This is part of Tartini's romanticization of ancient musical practice:

> Indeed, since they [the ancient Greeks], with regard to us, were the first institutors, it is necessary that they began from this idea of simplicity, because insofar as man is capable of art and refinement, in the first invention and institution of things, one knows that nature can do all, and art nothing – indeed, that it does not occur unless it is given by nature...[79]

Along with his understanding of music as only part of a larger physicoharmonic science, it was Tartini's idealization of the ancient Greek union of art and nature which contributed to his alignment of musical taste with universal properties of truth and human affections. This aesthetics of nature and natural expression in turn informed Tartini's practical views on music, and show up in his distinction between "natural" and "artificial" ornaments in the *Traité*.

I examine a few examples in Tartini's literature which he posits as exceptional moments in the study and practice of music. Each of these moments reflects his aesthetics of nature, whether through the observation of physicoharmonic principles, or through

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[77] Giuseppe Tartini, *Trattato di musica seconda la vera scienza dell'armonia*, trans. Johnson, (Dissertation: Indiana University, 1985), 444.
[78] *ibid*, 344.
[79] *ibid*, 371-372.

powerfully affecting moments of musical performance. Taken together, these examples demonstrate Tartini's broad understanding of instrumental practice and its central importance for music as a liberal art. Beyond this, they underscore his unique combination of cultural critique and advocacy, based on a romanticization of ancient Greek practice and his interest in a diverse array of musical phenomena and practices.

The "Third Sound"

In 1714, Tartini discovered what he called the "third sound," or what are now known as combination and difference tones. Tartini observed these third sounds while playing double-stops on the violin. Through this practice he intuited a mathematical relation between the two bowed tones and the third, phantom one. As Polzonetti notes, the discovery was to Tartini "as sensational as a Copernican revolution"[80] and formed the mathematical and physical basis for his theory of harmony. This connection—between the mathematical and physical, theoretical and practical elements of musical tones—confirmed Tartini's belief that music was the ideal union of scientific and humanistic pursuits. The violin and sensorium held a central position in this discovery—a fact that held true for later scientists including Francesco Galeazzi and Hermann von Helmholtz, who used the violin as an instrument for measuring principals of acoustics and perception.

Tartini's accidental discovery of the "third sound" for him established an almost spiritual connection with ancient Greek culture, and his understanding of their musical discipline as intimately connecting practice and theory. Beyond this, it indicated a future

[80] Polzonetti, "Tartini and the Tongue of Saint Anthony," 441.

potential for humanistic and scientific study, which might continue to retrieve this integrated art-science of the ancients:

> I am persuaded that if it were publicly known and cultivated, study, time, and further discoveries and observations would produce greater facility, joined with the highest utility, in two respects. One is that human sentiment based on true science, and aided by the physical things inseparable from it, would blossom much better and would expand much farther; hence a well-founded hope of arriving by another road at that point at which the ancients arrived. The other is that it would be happily discovered some day what, and how great, is the extension of physicoharmonic science, of which our music is a small part .[81]

One could make a case that Tartini's hopes for future potentials of his discovery have been realized, given the extension of his acoustic research in the work of Helmholtz, or the myriad expressive and imaginative compositional practices employing acoustic principles of beating, resonance, combination/difference tones, and the like. In any case, Tartini's discovery and its present reapplications underscore the ways in which even partial knowledge of older cultural practices continues to inspire experimental practices in the present.

The Singer in Ancona

In the fifth chapter of the *Trattato*, Tartini recounts a powerful performance—the same year as his discovery of the third sound—which left a deep impression on him:

> ...in the fourteenth year (if I am not mistaken) of the present century, in the drama which was presented in Ancona, there was at the beginning of the third act a line of recitative accompanied by no instruments other than the bass, by which, both in us professors and in the listeners, so great a commotion of spirit was raised that everyone was looking at one another because of the obvious mutation of color that was occurring in each of us. The effect was not one of lament (I recall very well that the words were of indignation), but of a certain severity, and cold bloodedness, that did

[81] *ibid,* 444.

indeed disturb the spirit...[82]

This experience is narrated in the fifth chapter of the *Trattato*, which Tartini frames as an "investigation of the musical modes by means of which, and by means of poetic oration, the ancient Greeks excited and calmed, as they desired, the passions of the human spirit [*animo umano*]."[83] Tartini describes the ancient Greek modes as coordinated with the subject matter of recited poetry, which informed musical considerations of register, intervals, contour, meter, and instrument. On the authority of Plato and Aristotle, he accords the ancient modes a tremendous and sensible power over the passions and spirit of humans, even if "examples [of the performance of these modes] are completely lacking."[84] With this context, Tartini's posits this performed recitative as a momentary recalling of the power of ancient music-making: a solo recitative with a single instrument accompanying, in close approximation of ancient Greek musical-poetic oration. Tartini describes the power of this moment as fleeting—the result of a composer "of excellent taste [...] led by good sense and by the words, and at that point accidentally came upon the truth of nature."[85]

Tartini suggests that the specialization of contemporary music is one aspect of a decline from ancient practices, in which, "a single man, as musician, poet, and philosopher, dealt with things of nature according to nature."[86] Rather than making the movement of passions the primary object of concern, contemporary practice makes

[82] *ibid,* 343-344.
[83] *ibid,* 341.
[84] *ibid,* 343.
[85] Tartini, *Trattato*, 344.
[86] Tartini, *Trattato*, 372.

"music alone, disconnected from any other consideration," the "sole end and purpose."[87] This idea that the object of music be the passions and not music itself is central to Tartini's aesthetics of nature. That is, he aspires to—like the Greeks—concern himself with "things of nature according to nature," and to find primary value "in the things themselves."[88] In specific musical terms, these appeals to the nature of ancient modes translate as a suspicion of the modern additions of "simultaneous harmony...modulation; and good manners, or good taste."[89] Good taste—the guiding principle for musical practice for many of Tartini's contemporaries including Quantz, Geminiani, and Leopold Mozart—is for Tartini a sign of ancient music's 'decline and total loss'.[90]

Taken together with Tartini's experience in Ancona, this suspicion of his contemporary galant tastes illustrates one part of his romantic amnesia—an early expression of this phenomenon which in fact predates the 19th-century classicization of European musical culture and subsequent romantic aesthetics. Throughout the *Trattato*, Tartini suggests that the artifice of his contemporary good tastes moves away from the power of ancient Greek musical practices, except for in moments, like this instance in Ancona, in which these ancient poetic-musical practices are momentarily and accidentally happened upon.[91] It is the loss of ancient cultural knowledge which allows fragmentary intuitions of its forgotten practice to more powerfully resurface in the present.

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[87] *ibid*, 384.
[88] *ibid*, 373.
[89] *ibid*, 373.
[90] *ibid*, 373.
[91] In this regard, Tartini expands upon and exaggerates the early instructions of *Seconda Prattica* admonitions to pay attention to the prosody of words.

Natural and Artificial Ornaments and the *Sonate Piccole*

The "third sound" and the singer in Ancona confirmed, for Tartini, the existence of natural modes of expression linking ancient and contemporary musical performance, as well as mathematical and physical principles of sound. Within Tartini's theoretical paradigm, the connections between these two domains of human affect and scientific knowledge remained wrapped in mysticism. Nonetheless, he attempted to transfer his understanding of natural and artificial modes into his pedagogy of ornamentation, and his descriptions and transcriptions of folk song.

The basic method of Tartini's treatise on ornaments is to instruct the reader through examples of ornamentation, beginning with the "natural modes" (which nature teaches) and progressing to "artificial modes" (combinations of the natural modes). Tartini posits a homology between the natural vibrations of instruments and the natural modes of ornamentation, providing a crucial link between his theoretical principles and his practical pedagogy:

> The sound of harpsichord strings, of bells, and of open strings of certain good bowed instruments leaves in its natural wake an undulation in the air which has been animated by it. This undulation is caused by the vibrations of the tiny parts composing the metal, or by the continued vibration of the string set in motion by the bow in the case of a bowed instrument, and by the jack in the case of a harpsichord string. In imitation of this effect one can produce this vibration artificially on the violin, viola, and 'cello with a finger held on the string while the vibrato is impressed on the finger with the force of the wrist, without the finger leaving the string, despite its being lifted slightly.[92]

According to this description, the ornament of vibrato imitates the vibration of sound waves coming off of bowed strings and resounding bells. Vibrato might be linked to nature through the observation of vibrating objects. If the ornament has a natural

[92] Tartini, *Treatise on the Ornaments*, 11.

derivation, the mimesis of natural vibrations already involves a complex technics of the finger and wrist, which Tartini describes in some detail. Tartini further notes specific rules for the placement of vibrato according to meter, pitch intervals, and phrasing, indicating that even this natural ornament is pulled between its objective derivation and its conventional usage in galant music.

In the same way that scales derive from harmony, or that harmony derives from mathematical and physical origins, artificial modes of ornamentation derive from natural ones:

> [...] if one observes the natural modes of each of the two notes and if one becomes familiar with them to the extent of becoming their absolute master, one will in the course of performance discover many artificial [Babitz translates *modi artifiziali* as "compound modes"] modes, derived from the first natural ones, in many other places suggested by Nature herself; and they will be found to be produced naturally, without study, without application, without art, without reflection.[93]

According to Tartini, artificial modes ideally combine these natural modes in a way feels as natural as possible. If one can master the natural modes, then the artificial ones will present themselves in a way that at least appears free of artful mediation. Complete knowledge and familiarity with the natural modes might then translate into the intuition of their various, natural combinations. Despite his stated adversity to contemporary and artificial tastes, Tartini here advocates for the efficacy of combinatorial practice—a fact that is unsurprising when considering the violinist's own reputation for florid and virtuosic ornamentation. At the same time, he makes it clear throughout this treatise that all ornamentation derives its affective power from the natural, universally recognizable ornaments seen in nature.

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[93] *ibid*, 20.

As another example of the exceptional role of natural expression in song, Tartini turns to examples of folk music. According to him, the universality of folk traditions, uncorrupted by learning and artifice, provides a pedagogical model that aspires to a unity prefiguring the division of art from nature. Such ornaments are "a gift of Nature [...] common among those who she favors, even when they have no knowledge of music."[94] As Polzonetti observes, Tartini looks to folk repertories as "natural phenomena from which learned musicians could abstract universal 'natural' principles,"[95] positing them as examples of a universally shared natural beauty. In contrast to Geminiani, who sought to "improve" Scots' tunes with harmony, Tartini saw folk traditions which lie outside the circumscribed culture of patronized art music as a kind of case study in natural expression.

In the 1740s, Giuseppe Tartini's music turned away from his earlier compositional styles which emphasized polyphonic textures and instrumental virtuosity. Tartini's miniature, and often unaccompanied movements from his *Piccole Sonate* (c. 1745), offer an example of this creative turn, which Paul Brainard describes as embodying a "homophonic, harmonically simplified, metrically regular, and melodically 'singable' style [...]."[96] Brainard outlines Tartini's pared-down style of violin writing, which moved away from technical and formal complexity, and towards "dance and song forms" in binary structure.[97] Tartini's setting of Canto 12:36 from Torquato Tasso's *Gerusalemme Liberata* is a transcription of gondoliers' folk song.

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[94] *ibid*, 15.
[95] Polzonetti, "Tartini and the Tongue of Saint Anthony," 444.
[96] Paul Brainard, *Journal of the American Musicological Society* Vol. 14 Issue 3 (Fall 1961), 386.
[97] *ibid.*

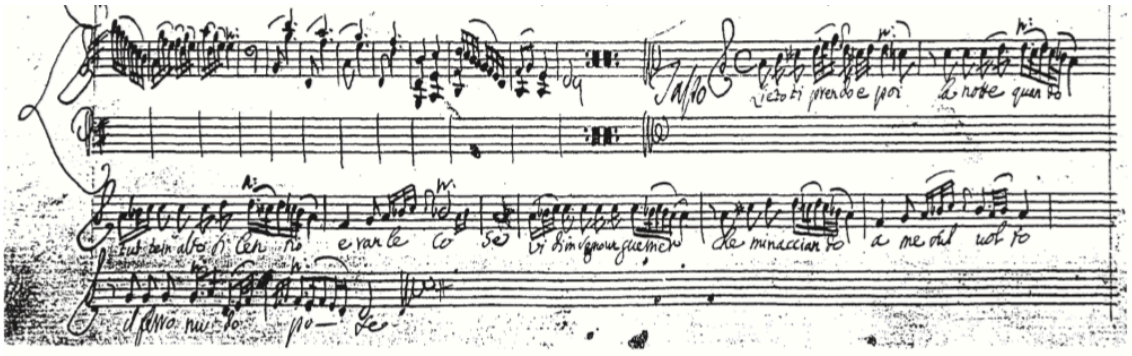

Figure 1.6: Transcription from Giuseppe Tartini's *Sonate Piccole*, MS 1888

This recitative movement leaves the folk transcription relatively undisturbed, even as it is mediated through the disciplined body of the violinist. The text of Tasso's poem is written next to the melodic transcription, as though Tartini is seeking to meld the ancient Greek practice of poetic and musical recitation with his own practice of instrumental transcription.

Tartini worked through his aesthetic account of the natural in both the *Piccole Sonate* and the *Traité*, attempting to exercise practical realizations of his theoretical principles. Polzonetti, also examining Tartini's treatments of folk music in these accounts, frames Tartini's understanding of music as pulled between the universality of nature and the cultural specificity of art. He writes, "Tartini's mission is to address and solve this duality by integrating, rather than rejecting, differences."[98] According to Polzonetti, Tartini sees this integrative approach as beneficial for his own music:

> [...] Tartini observed and studied the music of farmers, boatmen, and fishermen, conceiving folk repertoires as natural phenomena from which learned musicians could abstract universal 'natural' principles that could be used for the composition and ornamentation of art music. Once

[98] Polzonetti, "Tartini and the Tongue of Saint Anthony," 446.

> embedded in his own compositions and performing style, folk music was meant to flatten cultural boundaries and make his music universally appealing.

This belief in certain universal properties of natural expression diverges significantly from Geminiani, who defined taste as a marker of higher cultivation. Tartini, on the other hand, distinguished his contemporary learned musicians' "good taste" from what he called a "true good taste according to nature."[99] "Good taste," according to Tartini, exemplified the wayward [nature] of contemporary music-making, which uses harmony, modulation, and other techniques, creating a music that is artful and thus less affecting.[100]

I would add to Polzonetti's summary, that Tartini's understanding of folk music's expressive universality depends upon the particularity of tastes and melodies. At the same time as proposing a true good taste according to nature, he also points to an infinite plurality of good tastes, as diverse as voices and melodies. In his *Trattato*, Tartini writes: "I am too persuaded and convinced that when the cantilena is truly adapted to the passion expressed by the words, each cantilena should have its individual and particular modes of expression, and in consequence, its own individual and particular good taste."[101] In contrast to Geminiani, who creates a general rubric of "ingredients" for good taste, Tartini sketches a dualistic image of taste, pulled between elements of vernacular song transcending their cultural specificity, and particular melodies, whose diverse and individual tastes approach the semantic precision of words.

[99] *ibid,* 381.
[100] *ibid,* 384.
[101] *ibid,* 382.

1.3 A Pre-History of Bodily Abstraction

This chapter has provided a survey of Geminiani and Tartini's theoretical and pedagogical treatises in order to provide context for later contestations of the discipline of performance. That is, performance practice is here pulled between the theoretical, scientific, and speculative potentials of instrumental study, and the network of rules, skills, and imaginative freedoms negotiated by musicians working within the frame of patronized art music. The two violinists' differing understandings of taste—as a natural or cultivated principle—further underscore this disciplinary contestation.

In both cases, Geminiani and Tartini's treatises represent an early step in the rationalization of performance, prefiguring more codified methods of bodily discipline and practice. Chapter Three in particular returns to an analysis of Tartini and Geminiani's musical works in order to show the ways in which their more integrated approaches to music theory, composition, embellishment, and bodily execution are replaced by pedagogical and creative methods centered on the abstraction of the performing body—its parts, positions, and figurations.

CHAPTER 2

Mediations Between Mind and Body, Notation and Performance, Theory and Practice

Leopold Mozart's *Versuch einer gründlichen Violinschule* (1756) and Francesco Galeazzi's two-volume *Elementi teorico-pratici di musica* (1791/1819) can be understood as taking distinct but related paths out of Geminiani and Tartini's writings. Mozart developed Geminiani's pedagogical project, focusing on the practical aspects of music-making; Galeazzi followed Tartini, bridging practical instruction and speculative theory. Mozart's *Versuch* hones in on questions of score-reading and bodily discipline. Galeazzi's *Elementi*, by contrast, folds violin playing into a broader understanding of music that encompasses considerations of music history, theory, and composition. Galeazzi—like Tartini—viewed performance practice within the broader intellectual history of music as a liberal art-science. Mozart, on the other hand, paved the way for narrower frameworks for score-reading and bodily discipline characteristic of 19th-century pedagogy.

My reading of Mozart's *Versuch* touches on a few key points about the treatise: that it provided detailed accounts of musical notation and bodily discipline; that it provided prescriptive instructions for reading and executing musical scores; and that by regulating performance in this way, it paved the way for 19th-century pedagogical abstractions of both the performing body and musical interpretation. I argue that Mozart's prescriptive instructions in the *Versuch*, as well as the immediate and lasting application of this treatise as an authoritative text, demonstrate the ways in which pedagogical literature substantively contributed to the standardization (and mechanization) of musical

practice.

This chapter sets Galeazzi's *Elementi* in contrast to Mozart's *Versuch*, distilling the former's descriptions of the transition from schematic practices of the 18th century to formalist and idealist paradigms characterizing his contemporaries' music. By schematic practices I mean specific rules, techniques, and heuristics which develop modes of instrumental study and inquiry from small parts. These stand in contrast to Galeazzi's identification of abstract musical ideas and forms, which represent a top-down, structural approach to analyzing larger essays of musical thought. Throughout the *Elementi*, Galeazzi maintains an analytical attention to both performing bodies and musical instruments, demonstrating the interrelation of abstractions of both musical and corporeal forms.

In marked contrast to Mozart, Galeazzi attempted to singlehandedly outline something approaching the entire historical, theoretical, and practical project of European art music—a project that, compounded by his political exile, left him destitute and quite anonymous. Due in large part to its modest scope and clear instructions, Mozart's treatise became a standard point of reference for pedagogues to this day, whereas Galeazzi's project has received scant musicological attention, let alone the kind of familiarity that Mozart's still enjoys amongst studious performers. Part of the purpose of this chapter is to celebrate the wide-ranging contributions made by Galeazzi, to somewhat rectify his historical neglect, and to point to the contemporary importance of his writing. Galeazzi's broad vision of music—bringing together performance, improvisation, composition, history, and theory, in a single creative gesture—went in direct opposition to the trends of his time, characterized by the kinds of specialization seen in method books by Mozart

and later in the Paris Conservatoire.

2.1 Mozart's Versuch in the Context of 18th Century Print Culture

Mozart's *Versuch* is of a much larger scope than Geminiani's *The Art of Playing on the Violin*, and contains far more text than musical notation. In a similar manner to another treatise on performance published a few years prior by German flutist, Johann Joachim Quantz, Mozart begins with a discussion of the material instrument. Quantz was somewhat disdainful of mythic origin stories, writing "I will not waste time here with fabulous and uncertain tales of the origin of flutes...it is immaterial whether the Phrygian King *Midas* or someone else is supposed to have invented them."[102] Mozart, on the other hand, devotes a whole section of his introduction to a divine origin story of the violin, drawing mainly from Biblical text and Greco-Roman mythology for evidence, though he admits that much of this history "is based on doubtful foundations and indeed one finds much therein that is more fabulous than probable."[103]

This historical account synthesizes sources both ancient and contemporary, including among others, texts by Homer, Giuseppe Zarlino, Michael Praetorius, and Glareanus, as well as references to the Old and New Testament, anthologies of ancient Greek thought including that of Aristoxenus, Pythagorus, and Ptolemey, and even "an entirely new and costly book"[104] from which he quotes at length statements about an instrument "made of wood, strung with ten strings" known to the Phoenicians, Syrians, Hebrews, and the Arabians, and which was played by David before King Saul. The

[102] Mozart, *Versuch einer gründlichen Violinschule*, 29.
[103] *ibid*, 17.
[104] *ibid*, 18.

history ends with a list of names of contemporary theorists, including "Mattheson, Mizler, Spies, Marpurg, Quantz, Riepel, and others whom either I do not know or whose names do not occur to me at the moment."[105]

Given that Mozart is in fact very little concerned with theory, this introduction seems designed to position Mozart's treatise within a circle of contemporary German musicians, who throughout the 18th century published and corresponded through various societies, periodicals, and journals. The historian Celia Applegate notes Mattheson's early musical contributions to German print culture, of which "the second and third decades of the eighteenth century marked the takeoff point...As it coalesced, literary culture became the only network of shared concerns crossing barriers that divided one locality from another and the privileged aristocracy from all."[106] Mozart's awareness of the writings of Mattheson, Mizler, Marpurg, and others, was no doubt a product of his active engagement with 18th-century German literary culture.

In fact, Mozart explicitly cites W. F. Marpurg as an inspiration for his decision to publish the *Versuch*:

> Finally I received by chance Herr Marpurg's *Historic Critical Contributions to the Advancement of Music*. I read his Preface. He says at the beginning that one need not complain of the number of musical publications. He points out and regrets, moreover, that a guide to the violin is still lacking. This stirred my former resolution once more into life and was the strongest stimulus to send these pages to the publisher in my native city.[107]

Mozart's desire to contribute a violin treatise can at least partially be attributed to a perceived lacuna in contemporary German musical writings—and in fact Mozart's

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[105] *ibid*, 22.
[106] Celia Applegate, *Bach in Berlin: Nation and Culture in Mendelssohn's Revival of the "St. Matthew Passion,"* 48.
[107] Mozart, *Versuch einer gründlichen Violinschule*, 7.

treatise was praised for filling this gap in the literature by Marpurg himself, who wrote in his *Historisch-kritische Beyträge* (1757): "One has long desired a work of this kind but hardly dared to expect it. The sound and skilled virtuoso, the rational and methodical teacher, the learned musician; qualities, each and all of which make a man of worth, are manifested here."[108]

Besides the Marpurg connection, Leopold Mozart was invited to join mathematician Lorenz Mizler's "Corresponding Society of the Musical Sciences," whose members included JS Bach, Telemann, and Handel. One can only speculate why Mozart declined the membership, but his remarks about the Society in his treatise's introduction suggests that it had to do with his subordination of theoretical matters to immediately practical ones:

> The learned Herr M. Lorenz Mizler made a proposal some years ago which can never be too much extolled; namely, to establish a Society of Musical Science in Germany. This was actually inaugurated in 1738...No one will take it amiss if I say frankly that more depends on the accurate research into the making of instruments than on the effort of scientists to prove why consecutive octaves or fifths do not fall pleasingly on the ear. In any case, sound musicians have banished these long ago and it is sufficient that, because of the effect of their too close relationship on a discriminating ear which expects variety, these octaves and fifths become nauseating owing to unpardonable repetition. Should we not consider rather why it is we meet with so few good instruments, and those of such varied tone-quality, and unequal workmanship, than that we should reckon out whole rows of paper intervals and write them down, especially since they may prove of little or no subsequent use? These learned gentlemen could further the cause of music greatly by means of useful research—for example: what is the best wood for stringed instruments? How can it best be seasoned...In a word, how, according to a definite system, the parts of a violin should be proportioned with each other. In this way I say these learned gentlemen could, with the help of mathematics, and the interest of a good violin-maker, be of invaluable assistance to the cause of music.[109]

[108] *ibid*, xxiv.
[109] *ibid*, 15-16.

Mozart finds little of interest in the group's preoccupation with the science of harmony, instead urging them to apply their mathematical expertise to a more pressing question: that of standardizing measurements for the production of musical instruments.

This statement characterizes the mission and intention of Mozart's treatise, in contrast to the more theoretically oriented writings of Tartini and Galeazzi. Mozart is most concerned with establishing standards for musical practice—for him, music falls on the side of a performed art; science was ancillary to this and might best be applied to the improvement of practice. Geminiani's treatises are also practically oriented, but they demand the reader's imaginative engagement with a variety of different musical skillsets; Mozart's treatise gives much more exacting and prescriptive descriptions about violin-playing in particular, and what entails the "good execution"[110] of notated compositions.

While Mozart set himself (and Mizler's Society) the task of standardizing elements of violin performance, Mizler concerned himself with a more fanciful kind of automation. In 1738, Mizler advertised a machine made of brass, "which he claimed could computationally determine the proper chords to be played above any given bass-line."[111] The musician and music journalist Johann Adolph Scheibe, in response, announced an invention in *Der critische Musikus*, in parody of Mizler. David Yearsley describes Scheibe's fictional machine as follows:

> In the center of this circular table is a needle which points to all the rules which must be taken into account to compose a given piece...This needle can also divine the genre and emotional affect of the piece, as well as judge the composer's powers of invention and the broader scope of his imagination... Here, in absurd caricature, is musical understanding as pure mechanism, the complexities of music reduced to tables, the infinite

[110] *ibid*, 215.
[111] David Yearsley, *Bach and the Meanings of Counterpoint*, 182.

gradations of taste and affect calibrated on a metal plate.[112]

Scheibe points to the absurdity of a thorough-bass machine by pointing to aspects of music, such as genre and affect, which are subtle, variable, and which require tasteful judgment to divine. A machine, regardless of its ability to catalogue and follow rules, regardless even of the imagination of its inventor, lacks taste as the guiding principle of affective/affecting communication.

Scheibe's observations about the impossibility of programming a discerning taste anticipate a far more musically consequential process of automation—that is, the mechanization of many aspects of performance, including increasingly precise musical signs and character markings. In the first chapter of Leopold Mozart's *Versuch*, he produces a chart of "Termini Technici," listing all the character markings and remarks about affect, bow stroke, and tempo:

> *Allegretto* is rather slower than *Allegro*, usually having something pleasant, charming, neat, and playful, and much in common with the *Andante*. It must therefore be performed in a pleasing, amusing, and playful manner, which pleasantness and playfulness can be as clearly described, in this tempo as in others, by the word *Gustoso*.
> *Vivace* means lively, and *Spiritoso* is to say that one has to play with understanding and spirit, and *Animoso* has nearly the same meaning. All three kinds are the mean between quick and slow, and a musical composition before which these words are placed must show us the same in various aspects.
> ...[113]

Mozart's *termini technici*, reincarnated in many later treatises (Baillot's contains an even more elaborate "Table of the Principal *Accents* That Comprise Musical Character"),[114] responds to the increasing precision of affective character markings given in composers'

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[112] *ibid.*
[113] Mozart, *Versuch einer gründlichen Violinschule*, 50.
[114] Pierre Baillot, trans. Louise Goldberg, *L'Art du violon* (Evanston: Northwestern University Press, 1999), 355.

music by clearly defining their meaning in an attempt to regulate judgments of taste through practical instructions about tempo and character. Next to Mozart's *termini technici*, Scheibe's machine begins to sound less like a parody of Mizler's machine, and more like a blueprint to refine it.

2.2 A Literal and Literary Order—Analyzing Versuch

Leopold Mozart studied philosophy and jurisprudence at the Salzburg University before eventually becoming the Vice-Kapellmeister for the Archbishop of Salzburg. His intellectual milieu is unsurprisingly reflected in the structure and nature of his thought. His engagement in German print culture, which provided an imagined (national) community and the possible accumulation of lasting knowledge, as well as his university education in jurisprudence, set the stage for a treatise concerned with the proper interpretation and execution of musical notation.

Perhaps the best illustration of this is a comparison of Tartini's treatise on ornamentation with Mozart's chapter on embellishments. Tartini's treatise moves from the introduction of the "natural" to the "artificial" ornaments, eventually progressing onto more and more elaborate and untethered forms of extemporization over cadences. His numerous notated examples demonstrate that notes can be easily added, substituted, or taken away, as long as they conform to the basic underlying harmonic rhythm. Mozart's chapter on embellishments draws heavily from Tartini's text (without quotation or reference), but merely repeats or reinforces the prescriptive rules for reading different kinds of notated *appogiature*. Unlike Tartini, he does not provide any kinds of instructions, examples, or aids that might encourage the reader to attempt improvised

embellishments, variations, or cadenzas. Beyond this, the format and language of the treatise indicates Mozart's concern for legislating the proper interpretation of musical signs.

Chapter one of the *Versuch* is a three-part introduction of "the Old and New Musical Letters and Notes," including an "Explanation of all Musical Signs and Technical Words."[115] The second chapter concerns the manner in which one should hold the instrument, and the third chapter, titled "What the Pupil must observe before he begins to play," is a brief theory lesson on keys, scales, and intervals, the idea being that this knowledge is the first step for preparing a proper reading and performance of the musical score. The rest of the chapters give instructions about the bow arm and left hand. In these chapters, even when the treatise seems organized around bodily discipline, it is always in service of the "proper execution" of written material. This is perhaps most evident in the last chapter, entitled "Of Reading Music correctly, and in particular, of Good Execution," which begins with the unambiguous statement, "Everything depends on good execution [*ausführung*]."[116] Besides insisting that the performer play what is written, Mozart specifies the different musical duties of the orchestral and solo violinist, gives advice on how to read certain markings such as ties over measures and triple-stop contrapuntal figures, and discusses conventions of scansion and agogics. This emphasis on the proper reading and execution of the score led to Marpurg's appraisal of Mozart as a "rational and methodical teacher." It also bears the influence of German print culture as a means of remote learning, which created a sense of cultural and national cohesion. Mozart's attention to the act of reading notation marks a hyper-awareness of print as the

[115] Mozart, *Versuch einer gründlichen Violinschule*, xxxiii.
[116] *ibid*, 215.

primary medium for communication.

Beyond giving instruction on the act of reading musical signs, Mozart provides detailed instructions on positions and movements of the body. Roughly speaking, chapters four through seven give instructions for the violinists' bow arm, and chapters eight through eleven to the left hand. Even though Mozart's treatise was published only a few years after Geminiani's (and Mozart clearly benefitted from reading an unpublished manuscript of Tartini's treatise on ornamentation), the increased attention he gives to matters of bodily discipline represents a significant shift from his contemporaries.

In much of Geminiani and Tartini's writing, some level of instrumental expertise is assumed, allowing them to instead pay attention to questions of imagination, affect, and taste, without needing to spend much time on the mechanics of how a body expresses these considerations of mind. However, Mozart's increased attention to bodily discipline by no means cordons off his treatise from philosophical questions. Even as Mozart makes finer distinctions regarding parts and movements of the body, he raises more questions about the relations between matter and mind, performing bodies and musical thoughts.

The question of how thought and matter interact was of major philosophical concern since Descartes, in his *Meditations on First Philosophy* (1641), articulated the distinction between matter as spatial, un-thinking, and extensive, and mind, whose essence he conceived as thought. In Descartes' own compendium on music, he designates the object of music as sound, and the end of music "to delight, and move various Affections in us,"[117] a view that is largely taken up by Tartini and Geminiani, without

[117] René Descartes, *Descartes: Meditations on First Philosophy: With Selections from the Objections and Replies,* trans. John Cottingham and Bernard Williams (Cambridge: Cambridge University Press, 1996), 1.

much concern for the body as a medium in this endeavor.

Mozart, on the other hand, doubles down on the Cartesian dualism of mind and body. By observing the body and its parts, he separates the body's experience from instrumental reason. In his first chapter on "Musical Letters and Notes," Mozart writes: "All our perceptions originate in the external senses. There must therefore be certain signs which, through the eyesight, affect the will instantly, and cause the production of various tones either with the natural voice, or on different musical instruments, according to these various signs."[118] This statement seems to resolve the question of how sense-matter and mind interact: musical signs are external matter that affect the inner will, and cause the production of material sound, thereby positing a cyclical pattern of matter affecting mind and mind affecting matter. However, this raises the question of how the sign should properly affect the will, and how the will should properly motivate the material body.

One of the difficulties of legislating between sign and body is the temporal nature of bodily performance, in opposition to the static nature of notation. As Mozart writes, "...time is the soul of music,"[119] as though indicating that something about music's temporality exists beyond the material, in the realm of the mind and soul. Similarly, one of his main instructions regarding time is that "One must...instill the crotchets thoroughly into his [the student's] mind"[120]—an indication that musical signs (in this case crotchets) require a process of training a measurable exactitude into the student's mind, independently from one's body. After all, this injunction is made to prevent the habit of

[118] Mozart, *Versuch einer gründlichen Violinschule*, 25.
[119] *ibid*, 30.
[120] *ibid*, 34.

tapping the beat with one's foot.

On the other hand, Mozart links the passage of time to bodily functions, whether conscious or unconscious: "Time is indicated by the lift and fall of the hand, according to which all those who sing or play together must accommodate themselves. And just as the doctors call the movement of the pulse 'Systole' or 'Diastole,' so one calls the down beat 'Thesin' and the lift of the hand 'Arsin' [Zarlino]."[121] As such, Mozart expresses an ambivalence between a mathematically exact time-measure of the mind, and the gestural, corporeally-grounded pulse—a precursor to the dialectic of abstraction and mimesis noted by Theodor Adorno in his monograph on performance (which I return to in Chapter Five).[122] This dialectic, between qualitative and quantitative measures in any case marks Mozart's standardization of instruments measuring the subject: the score, the sign, the count, and the discipline to separate one's thoughts and bodily impulses.

The question of whether "time-measure"[123] (or counting) is a mental or bodily task is one expression of the still unresolved question of how mind and body interact with each other in the context of musical production. Of note is the fact that this question comes up as the division of labor between composition and performance is becoming more articulated, and as the specificity of notation is becoming more determined. The result, or perhaps the motivation (the causality is unclear), of this movement is that musical mediation—that is, the mediation between bodily and graphic forms of musical representation and performance—becomes a primary topic of concern for treatise-writers including Mozart, Galeazzi, and for nineteenth-century violinists including Bartolomeo

[121] *ibid*, 31.
[122] Theodor W. Adorno, *Towards a Theory of Musical Reproduction: Notes, a Draft and Two Schemata,* trans. Weiland Honban, ed. Henri Lonitz, (New York: Wiley, 2014).
[123] *ibid*, 30.

Campagnoli and Pierre Baillot. This mediation is not yet "interpretation"—the personalization of this standard, idealized measuring framework of the musical work. Nor does Mozart, like many violinists of the 19th century, anthologize examples from musical works. Instead he writes out his own musical examples to show the reader how to divine knowledge about the key, time signature, character markings, general affect, etc.

Mozart's focus on the written instructions of the composer, as well as his laying out of conventions for how the performer should read and execute these instructions, represents a mid-way point between the 18th-century understanding of notation as provisional markings that can be altered and imaginatively re-combined, and a 19th-century understanding of notation as the traces of historical genius: the material remnants of the musical work, constituted by the composer's *Geist* (spirit, mind). Mozart's prescriptive connections between written notation and bodily execution anticipate a more drastic nineteenth-century separation between the Romantic conception of composition as premised upon the generation and arrangement of musical ideas, and instrumental performance as the material reproduction of musical works. Mozart contributes to this 19th-century separation of performance and composition by abstracting the body. This division prefigures and clears the way for the abstraction of more surprising and virtuosic performative feats, and for the compositional abstraction of large-scale musical forms.

2.3 Francesco Galeazzi and his Elementi teorico-pratici di musica

Francesco Galeazzi (1758-1819) was a violinist and music theorist who lived and worked in Turin, Rome and Ascoli Piceno. Galeazzi's educational background remains unclear, though his familiarity with the work of Athansius Kircher, as well as music

theorists Giovanni Battista Martini and Gioseffo Zarlino, signals a comprehensive formal education, as does his fluency in mathematics and the sciences.[124] As a result of this knowledge and training, Galeazzi's *Elementi teorico-pratici di musica* represents a broad overview of contemporary musical thought as well as a historical account of music as an art-science of the medieval quadrivium.

Although Galeazzi's treatise was published some 35 years after Mozart's, it evinces his preoccupation with 18th-century Enlightenment thought, in contrast to Mozart's proto-modern sensibility regarding performance as a literal reading and execution of the composer's instructions. Indeed, Mozart anticipates something of a watershed moment for relations between performance and composition in European art music. In the interim between the publication of Galeazzi's two editions of his treatise (1791 and 1819), the Paris Conservatoire and its violin method were established as lasting models for modern conservatory education (as Galeazzi himself mentions in the preface to his second edition). Along with this formalization of performance pedagogy, the skillsets of composers and performers drifted apart; improvised ornaments, cadenzas, and fantasies were largely replaced with the bravura tradition of instrumental virtuosity; the concept of *Werktreue* came about with the canonization of the past-oriented "museum of musical works";[125] music theory and practice became further separated; in short, classical music took on the pedagogical, institutional, and disciplinary organization that largely prevails today.

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[124] Francesco Galeazzi, trans. Deborah Burton and Gregory W. Harwood, *The Theoretical-Practical Elements of Music, Parts III and IV*, (University of Illinois Press, 2012).

[125] Lydia Goehr, *The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music* (Oxford: Clarendon Press, 1992).

While Galeazzi acknowledges the value of the Parisian violin method, his treatise sets itself a more ambitious task of folding violin playing within a broader understanding of music that encompasses considerations of history, theory, and practice. The treatise is split into four parts – "Elementary Grammar," "The Art of Playing the Violin," "Theory of the Principles of Ancient and Modern Music" and "The Elements of Counterpoint." To Galeazzi, theoretical study "forms part of a much broader science called acoustics" and "concerns the generation and relationship of pitches; that which is usually demonstrated with musical-mathematical calculation." Practical music, on the other hand, "is subdivided into composition and performance," of which performance is "the operative and mechanical part."[126]

This description of performance as the mechanical part of practical music in fact matches Mozart's pedagogical approach quite neatly. What distinguishes Galeazzi's actual approach is the seamless way in which he integrates theoretical and practical knowledge of the violin into his pedagogical experiments. Contrary to his own characterization of performance, Galeazzi does not write about violin-playing as the mere interpretation and execution of the written sign, but as a reserve of tacit knowledge that might lend insight into the nature of music, acoustics, and human perception.

In this sense, Galeazzi extends Tartini's line of musical thought, continually moving between considerations of nature and art, theory and practice. For Galeazzi as well as Tartini, the nature of music is considered the domain of theory, producing scientific and mathematical knowledge. Galeazzi makes a similarly explicit division between theoretical and practical elements of music-making: for him, theory addresses

[126] Galeazzi, trans. Burton and Harwood, *The Theoretical-Practical Elements of Music, Parts III and IV*, 26-27.

musical-mathematical relationships and practice addresses considerations of composition and performance. Tartini's conceptual framework privileges nature over art and disparages the separation between the two; Galeazzi is not as pessimistic about contemporary practice, and arguably more fluidly integrates music theory and practice.

Galeazzi's pedagogical method oscillates between descriptions of disciplinary mechanism and free expression, theory and practice, and formalism and flux. Theoretical knowledge is often proffered as a precondition for practice, but practice is also foundational for theoretical understanding. Learning happens as the continual raising of one into the other. This is reflected throughout the treatise's four parts, as well as in the movement from one part to the next: part one provides the student with theoretical knowledge of musical notation as a precondition to the treatise on playing the violin; part three similarly concerns a history of music theory, preceding part four as the practical instructions on the composition of counterpoint.

2.4 Schema, Ideas, Forms

Throughout the four parts of his treatise, Galeazzi narrates key epistemological shifts in the transition from schematic to formalist/idealist conceptions of musical practice. In this section I draw attention to several examples in Galeazzi's work which illustrate the ways in which various graphic, bodily, and instrumental templates guide techniques for composition and performance. These schema—informed by both repeated practice and theoretical knowledge—refine and extend the body's sensorial capacities, or what I sometimes refer to as a bodily calculus. As Galeazzi points out, the body's calculus integrates mathematical/theoretical knowledge into its study and observation of

musical techniques, instruments, and tones.

Galeazzi provides early descriptions of musical ideas as a metaphysical category distinct from the media communicating said ideas. Similarly, Galeazzi provides some of the first descriptions of musical forms such as the Sonata and Concerto, which involve the handling and development of ideas or motives. Larger-scale musical forms arise through the handling and accumulation of ideas, and come to measure the individual subject composing or performing them. Finally, Galeazzi anticipates a corresponding move of the 19th century: the abstraction of bodily technique as itself a structural entity. Both compositional and bodily forms exist in a dialectic between fixity and flux, between a need to identify synchronic mechanisms and the acknowledgment that these mechanisms (of the body or the composition) arise out of particular movements and personal expressions.

Schema

The schema that Galeazzi describes throughout his treatise might be thought of as templates for performing and listening bodies which maintain the shape of interrelated networks of musical practice and experimentation. These templates serve as pedagogical aids, mediating between the violin and the performing/perceiving violinist. In one instance, Galeazzi addresses the question of how the beginner violinist, not yet adept in perceiving perfect fifths, might tune their own instrument. He fashions a method using a pitch pipe tuned to the violin's open D and a sheet of coarse paper, measuring a third of the distance from the nut to the bridge to mark the fifth above the D and A on the fingerboard. While maybe more work than it is worth, this device demonstrates the

mapping of integer ratios of musical intervals onto the instrument, using theoretical knowledge as a step along the way to the pupil's proficient practice and maintenance of the instrument.

The diagramming of mathematical ratios on the body of the instrument and instrumentalist continues past this early stage. Later in Part II, Galeazzi provides diagrams of the violin's fingerboard, which mark the proportions of intervals to the level of the comma and schisma:

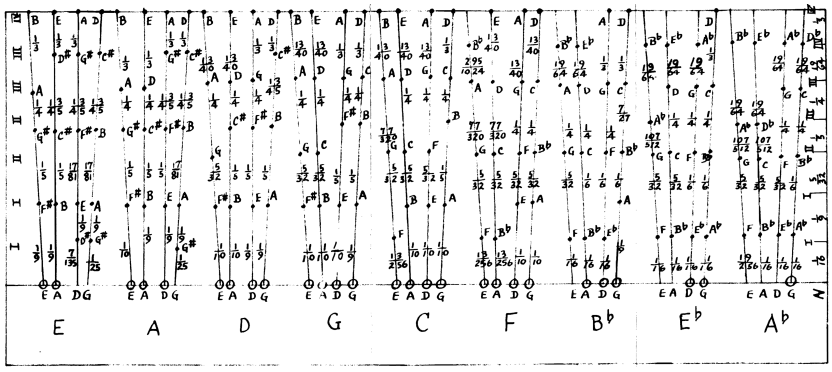

Figure 2.1: Galeazzi's fingerboard diagrams (1791)

Mapping mathematical ratios on the fingerboard refines the violinist's understanding of these intervals by reinforcing connections between theoretical knowledge and the violinist's visual and haptic experience of playing the instrument. The diagrams imprint details of intonation upon the student's mind, providing them with a graphic representation of a refined bodily calculus.

Of the diagrams, Galeazzi writes:

> There will certainly be many objections to these diagrams; we shall anticipate the principal ones here. The first objection will be made by those who believe that the smallest intervals such as the comma or

> schisma, etc., are not usable in practice... I beg them to consider that the very distinguished Padre Giambattista Martini in his immortal *Storia della Musica*, page 267, Volume I, along with Padre Mersenne is of the opinion that a 1/20th part of the comma is quite discernible to the ear. Moreover, I propose the following experiment for them [the critics], which is extremely easy to repeat on any mediocre violin. Place any finger perpendicularly anywhere on a string of the violin and listen attentively to the pitch which ensues; without moving the finger from the spot, bend it slightly either towards the bridge or the pegs. In the first case the pitch will be heard to rise discernibly and in the second, fall, although the bending of the finger produces an infinitesimally slight rise and one certainly much less than 1/20 of a comma. One may consider that, the comma being 1/91 part of the length of the entire string, one such part, put on the usual scale, will very quickly be seen to be divisible into more discernible parts than that which was expressed by the above-mentioned celebrated author, and each such part will create for the ear a different, distinguishable sensation.[127]

Galeazzi here describes the performing body and sensorium as a multi-part instrument measuring pitch perception. Galeazzi's experiment consists of the violinist's finger moving to measure the sensitivity of the ear (and psyche, which perceives and judges), using the musical instrument (the violin). Theory guides practice, but practice confirms and contributes to theoretical knowledge. The body is measured by the psyche, as when it proprioceptively judges the minute movement of the finger. Additionally, the body provides the measure for the discernment of the inner ear and mind, whose sensitivity is confirmed through the playing of musical instruments. And behind this is the diagram of the violin fingerboard, which provides a mathematical representation of this bodily calculus.

Galeazzi observes this productive exchange between bodily technique and theoretical knowledge:

> The long inveterate practice of an experienced professor has for him perfectly taken the place of theoretical speculations and so his fingers

[127] *ibid*, 222-223.

> without thought stop the strings in their proper places with an almost mathematical exactness which results in a most perfect intonation. Thus it cannot be other than that theory has the greatest advantage over mere practice. Beyond taking into account the origins and establishing the certainty of the existence of the smallest intervals, it can considerably shorten the time to acquire precise intonation. Indeed, fifteen or twenty years of the most assiduous practice are hardly enough for the skilled performer to arrive at a similar end, whereas if the study is combined with theory by means of the cited observations, such time could be considerably shortened, which will always be a true and real advantage.[128]

With regard to acquiring "an almost mathematical exactness" of intonation, theoretical knowledge aids practice, but long practice can also take the place of theory. Galeazzi's intonation charts are templates for bodily practice, which through complex, mechanistic interrelations of the ear, soul, fingers, and instrument, guide a body's perception and technique.

These applications of theoretical knowledge to practice are in service of something more than pure intonation—for Galeazzi, the nature of intonation is imbued with the expressive, soulful capabilities of personal expression. In discussing what makes a performer stand out, he describes the one whose "greater precision in intonation [...] reaches our heart, insinuates himself into our soul itself, and pervades us with the most vivid pleasure."[129] Like Tartini, Galeazzi reaches back to the ancient conception of the soul as attuned to the mathematical harmonies of nature. Intonation, in its union of mathematical and practical principles, is a potent purveyor of musical, mathematical, and humanistic expression.

Another example demonstrates the manner in which templates for musical practice and pedagogy network together not only the instrument and perceiving subject,

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[128] *ibid*, 226.
[129] *ibid*, 227.

but the practical knowledge of composition, performance, and instrument-tinkering. In his Part IV on counterpoint, Galeazzi describes the role of the fundamental bass, which guides composition, in opposition to the basso continuo, which is heard in performance:

> ...the fundamental bass must only be in the mind of the composer and not written. It is like the cross-hatchings and grids employed by painters in order to recopy pictures or reduce drawings from large to small or vice versa. When the drawing or picture is recopied, the grids or cross-hatchings are erased, no longer apparent to the observer. But in the meantime they served the artisan as a wonderful aid in his work. In the same way, the fundamental bass must serve as escort and guide for the composer. But once the composition is done, it vanishes and is no longer perceptible to the ears of the listener.[130]

The movement of the fundamental bass, which determines phrases and periods through local cadential patterns, guides the process of composition. This schematic motion exists like the "cross-hatchings and grids employed by painters"—it guides the composer but is invisible/inaudible to the listener. This template, which in its visual analogy is drawn and erased, for Galeazzi exists "in the mind of the composer"—a mental guide that is traced without ever becoming sensible to a viewer/listener.

These practical aids intersect in ways that blur the border between the study of nature and culture. In his article on the "Harmonic Connection" Galeazzi discusses "the artifice of inversions,"[131] in distinction to the natural science of harmony. He demonstrates how it is possible to turn a I-V-I-IV-V-IV-V-I progression of the fundamental bass into an ascending scale using chord inversions—a process commonly known through pedagogical literature as the rule of the octave. This description of the rule of the octave leads Galeazzi to what he calls the harmonic connection, which he

[130] Galeazzi, *The Theoretical-Practical Elements of Music, Parts III and IV*, trans. Burton and Harwood, 184.
[131] *ibid*, 173.

describes as such: "...if the two chords GBD and CEG succeed each other, such a progression will be most agreeable, inasmuch as the pitch G, which is common to both chords, forms what we have called harmonic connection."[132] The harmonic connection is the liaison note between two chords—as a common pitch between chords, it is "agreeable" to the ear, and thus helps to disguise the artifice of the inversions.

Galeazzi speculates that the agreeable nature of the harmonic connection is due to the physiological make-up of the ear:

> It is the very probable sentiment of many modern philosophers that the sensations of pitches are formed in the ear by the vibrations of shorter or longer lengths of the fibers of the *spiral lamina*, communicated to them by the air enclosed in the *labyrinth*. Now when two pitches or two chords succeed each other with rapidity, the impressions caused by the second join in setting in motion some of the above-mentioned fibers before the others put into vibration by the first pitch or chord have totally lost their oscillation so that the soul receives, almost at the same time, the sensations of both pitches or chords. If it happens that such pitches have some relationship between them, there results an agreeable sensation; otherwise it is harsh and crude.[133]

Here he describes a circuit between the harmonic connection as a guiding template for inversions of the fundamental bass, its sounding properties, the physiology of the inner ear, and the soul, which receives signals from the inner ear and judges the sensation to be either agreeable or disagreeable. The agreeability or disagreeability of the sensation depends on whether or not there is a harmonic connection to smooth over the movement between chords—for example, Galeazzi suggests that in the succession of chords GBD and FAC, the G and F, B and A, D and C, are close enough to be confused by the inner ear/soul, and furthermore are dissonant in respect to each other. By describing the rule of the octave—a familiar technique for composition and figured bass realization—as suiting

[132] *ibid*, 176.
[133] *ibid.*

the physiological nature of the ear, Galeazzi posits this cultural technique as a natural one.

Galeazzi introduces another node in the circuit between ear, soul, and sound: namely, the musical instrument. He writes:

> This [the disagreeable sensation of dissonant successions of chords] would no doubt be tempered if there were a pitch found in both chords to prepare the soul, so to speak, to receive the new sensation by keeping it intent on the common pitch. It is more or less by a similar principle that harpsichord builders usually set some little strips of cloth in the action of these instruments to impede the resonance of the strings so that it does not cause confusion in a quick succession of chords, mixing one with another.[134]

The dampening cloth is designed to dampen the resonance of chords, so that the movement of one to the next does not create a lingering dissonance. The strips of cloth in the harpsichord work in concert with the artifice of the harmonic connection to keep chord progressions consonant and agreeable.

The interaction of bodies, instruments, and theoretical knowledge measures and maintains the dual identity of music as a science and art. In some cases, it "falls to art to moderate the defects of Nature,"[135] for example, when notes falling outside the triad are needed to create an artificial harmonic connection between the fourth and fifth scale degrees in the scalar inversion of the I-V-I-IV-V-IV-V-I progression. That is, the carefully composed harmonic connections between chords, as well as the strips of cloth inserted under the action of harpsichords, serve the practical function of crafting agreeable sense material. Of course, how Galeazzi delimits the natural is eminently disputable; for example, this claim depends on the mistaken assumption that the twelve-tone scale indeed derives from nature without the mediation of artifice (Galeazzi provides

[134] *ibid*, 177.
[135] *ibid*.

his theoretical "proof" for the natural derivation of the Major scale in Part III).

One might think of Galeazzi's experiments, which hold multiple objects—the acquisition of performance skill, the expansion of one's sensorial capacities, or the engineering of instruments in alignment with human perception and aesthesis—as an idiosyncratic extension of Tartini's physicoharmonic science. In any case, Galeazzi's schematic examinations of bodies, instruments, and acoustic principles integrate corporeal and theoretical knowledge in their study of both the cultural practices and natural phenomena of musical sound.

Ideas

In contrast to schematic practices guiding more fragmentary examples of composition and instrumental study, Galeazzi introduces the musical idea as an entity whose genesis and development structures an entire musical movement. In his writings on the composition of counterpoint, Galeazzi distinguishes between the musical idea and the means of the idea's articulation and modification. This differentiation between the generation, articulation, and assembly of ideas lays the grounds for the 19th-century understanding of musical forms and works, which take ideas as their organizing units. This understanding of the idea as a unit for the work is described in Alexander Gerard's *Essay on Genius* (1774): "Invention is the capacity of producing new beauties in works of art and new truths in matters of science; which can be accomplished only by assembling ideas in various positions and arrangements."[136] Ideas are valuable for their ability to be structured and formalized; their very identity is constituted by a process of formal

[136] Alexander Gerard, *Essay on Genius* (Edinburgh: W. Creech, 1774), 27.

becoming.

Immanuel Kant's "aesthetic idea," elaborated contemporaneously with Galeazzi's work, is an illuminating point of comparison:

> In a word, the aesthetic idea is a representation of the imagination, associated with a given concept, which is combined with such a manifold of partial representations in the free use of the imagination that no expression designating a determinate concept can be found for it, which therefore allows the addition to a concept of much that is un-nameable, the feeling of which animates the cognitive faculties and combines spirit with the mere letter of language.[137]

Given that the aesthetic idea involves the free use of the imagination, it is not tethered to sense and understanding in the way that determinate concepts are. As such, it leaves room for that which is "un-nameable," i.e. feelings or intuitions that partially appear, but are never conceptually apprehended in their entirety.

Galeazzi's musical idea, like Kant's aesthetic idea, exists beyond the media that represent it (i.e. performing bodies, words, notation). In section 2 of Part IV, Galeazzi makes the distinction between the composer's ideas and their ability to write them down:

> We will limit ourselves here to explaining the way of learning how to set one's own ideas on paper and knowing how to write them clearly. To such an end, the first exercise that will have to be done will be to learn by heart minuets, balletti, canzonette, etc., and other such little pieces of music that have been well written; afterwards, to write them down without looking at them, barring them by oneself and comparing the written version with what one has...With this method, in a very short time one will also learn to set his own ideas clearly on paper.[138]

Here he focuses on instructing the reader on how to gain fluency in musical writing—a skill that is separated from ideas themselves. The ideas are thus detached both from their written manifestation and from the skill required to put them on paper. Notating what one

[137] Kant, *Critique of the Power of Judgment*, 194.
[138] Galeazzi, *The Theoretical-Practical Elements of Music, Parts III and IV*, 306.

hears means understanding the mediating templates required to set music down on paper—key signatures, meters, schematic musical figurations etc.—, which aid the transcription of sonic into graphic forms. If the idea exists as an impressionistic manifold of intuitions/feelings, then virtual templates are what allow for the idea to be brought into proximal relation to material practice.

Coming up with ideas, in distinction to writing them down, is characterized as a labor of the imagination. This imagination can be aided, supplemented, and improved by skill and understanding. Galeazzi writes:

> 84. There are two ways of composing music—and especially instrumental music. The first is all inspiration and imagination...Precepts cannot be given regarding this way of composing, inasmuch as it is only a product of Nature and a gift she has reserved for few. Such a way of composing, however, has its particular drawbacks. The principal one is that unless one has in his head an inexhaustible quarry of musical thoughts, inspiration weakens with the passing of time, imagination tires, and at the end, one becomes a writer barren of ideas, compelled at every step to copy himself and to represent anew, under a different aspect, things that have already been done. Such a way of writing is therefore best in youth and as long as the imagination is fervid and full of ideas. But the wise composer knows how to make a prudent economy of these ideas: he never sheds them carelessly. If this almost divine inspiration—which is infused by Nature alone—nevertheless begins to slacken in him, he resorts to art, i.e., to the second means, about which it now remains for us to speak.[139]

This first mode of composing relies on imaginative genius, is gifted by Nature, and cannot be rationalized or given rules. However, Galeazzi suggests that this way of composing is ultimately unsustainable, for "inspiration weakens" and "imagination tires." Imaginative genius must be supplemented by art, which can be described by rules and precepts. Of this second method he writes:

> We owe such a means primarily to the German writers: George Frideric Handel, the two Bachs, and above all Joseph Haydn, never sufficiently

[139] Galeazzi, *The Theoretical-Practical Elements of Music, Parts III and IV*, 354.

> lauded. They may be regarded as the ones who invented and perfected of this very admirable way of composing. It is, in fact, nothing other than fugal style turned into greater perfection and highly ornamented, through which very excellent compositions can be made with very few ideas and very scarce imagination but with the most profound science. It consists of this: the judicious composer begins with any motive at all, even the most trivial, and without particular choice, for as has already been said, the beauty of a composition consists in its handling and the intertwining of the parts and not in the choice of a motive; he knows how to make a good figure with any idea through orchestration...[140]

An artful economy of means allows for ideas to arise from the material itself—a kind of self-generating, autonomous process of musical thought. In this way, Galeazzi advocates for a mode of composition in which imagination and skill are employed to play with and around motifs, rather than to generate the motivic identities in and of themselves. The primary skills noted are the "handling and the intertwining of the parts," "orchestration," and a "highly ornamented" "fugal style."

Ideas are thus malleable objects, whose handling and intertwining generates the composition's beauty. Rather than the schematic crafting of more local phrase structures, Galeazzi points to the compositional structure as itself an essay of musical ideas. If ideas exist first impressionistically as feelings/intuitions/partial representations, then templates bring ideas into proximal contact with practice, facilitating their notation, performance, and artful manipulation as musical motives. While Galeazzi does not put too much importance on ideas in and of themselves, their identification signals an epistemological shift towards musical idealism, which separates the composer's thoughts & ideas from mediating templates and techniques.

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Galeazzi's attention to musical schema which instruct the performer through

[140] *ibid*, 355.

networks of machines, instruments, physiologies, and techniques, piece together the performing/perceiving subject. They also provide the armature for the generation and handling of ideas, as seen in the figured bass, or in his mathematical motive-generator.[141] These ideas, through their artful manipulation, coalesce as musical forms (such as the sonata, concerto, or rondo). And in a dialectical process of sublimation and raising, learning and un-learning, these forms come to measure the subjects who compose and perform them. This subjective individualism is characteristic of Romantic thought, and the cohesion of these compositional forms aids the movement towards a conception of music that weighs musical works against individuals, and composers against virtuosos.

Galeazzi's treatise has been noted as one of the earliest descriptions of sonata form (before it was known as such).[142] However, as Robert Gjerdingen points out, Galeazzi's description of form focuses on the rhetorical piecing together of musical periods and sentences, which might be described in terms of partimento composition.[143] Whereas Galeazzi and his contemporary, Heinrich Christoph Koch, describe form as arising out of a more local grammar, form in the 19th century "became more than a matter of conventional arrangement: it was the extensive manifestation and discernible logic of

[141] In the second section of Part IV, he proposes a process in which one selects randomized numbers indicating notes within a key; these generate motifs, through a process in which he directs the reader to "Vary the note shapes at your will...aid with your imagination a little bit, and you will thus be able to form innumerable motives that, handled with art, will not fail to produce some superb compositions"; Galeazzi, *The Theoretical-Practical Elements of Music, Parts III and IV*, 315.
[142] James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late- Eighteenth-Century Sonata* (Oxford: Oxford University Press, 2006).
[143] Robert Gjerdingen, *Music in the Galant Style* (New York: Oxford University Press, 2007).

the creative imagination."[144] The investment of imaginative creativity in the composition of large-scale tonal forms was part and parcel of the overall abstraction of compositional forms from musical practice.[145] Whereas the writers in the first chapter emphasized ornamentation and extemporization as important indices of the musician's imagination, Joseph Joachim and Carl Flesch (in chapters four and five) describe a musical practice in which the composer's imagination took precedent over the performer's, and in which the latter's main artistic task was to interpret the formal coherence and ideas of the former. Galeazzi's early descriptions of compositional forms mark a moment in which these structures had not yet been fully reified, imbued with spiritual understandings of the composer's historical genius.

Beyond his description of sonata form, Galeazzi's description of the three-movement concerto illustrates the manner in which these familiar forms come to measure the individual subject:

> The opening allegros must have a majestic, grandiose and harmonious first tutti (Pieno)...For a slow movement a Romance alla Francese is now performed. Its character is unpretentious and produces the optimum effect when played with a broad espressione...This movement can be fused by means of a brief thematic bridge passage (picciola ripresa) with a sprightly and popular Rondo without a contradance...
> 356. In this way the virtuoso performer will display a majestic, expansive and serious statement in the first allegro, will unfold the espressione, fine style, and excellent bow control in the adagio, and will finally release the imagination in the rondo; with a brilliant flourish he will seek to insinuate joy in the soul of the listeners so that they may leave joyfully, and

[144] Burnham, Scott, "Form" from *The Cambridge History of Western Music Theory*, ed. Thomas Christensen (Cambridge: Cambridge University Press, 2008), 880-906.
[145] Janet Schmalfeldt, *In the Process of Becoming: Analytic and Philosophical Perspectives on Form in Early Nineteenth-Century Music* (New York: Oxford University Press, 2017).

contentedly, applauding the one who knew so well how to satisfy them.[146]

The three-movement structure of the concerto highlights various strengths of the performer: their ability to make an expansive musical statement (i.e. navigating large-scale compositional form), to display style through the bow arm, and to "release the imagination in the rondo." As such, the movements of concerto form conform with domains of the musical/structural, bodily/expressive, and mental/imaginative; a kind of measured exposition of the body and mind of the performing subject, as mediated through the musical object (the composition). The progression of the three movements creates a longer, familiar scheme for the audience to recognize and appreciate: an extension of the local, rhetorical phrases, which governed tasteful composition and improvisation in the galant style.

Form—both bodily and musical—measures the image of the cultivated performer. As I will show in Chapter Three, Baillot takes forms for bodily discipline as literal measurements of the ideal violin-playing body. That is, he specifies precise angles and distances for positions of the arms, hands, and torso. This more regimented and militant turn towards bodily form supposedly allows one's soul and expression to come out more clearly—a logic that Galeazzi follows to a certain degree, but with a more sophisticated understanding of the various ways in which templates mediate and guide the composers' thoughts and ideas, as well as the performers' style and expression.

This attention to the manner in which musical thoughts/ideas are imagined, constructed, and expressed, is evident in his instructions on composing first movements:

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[146] Galeazzi, *Elementi Teorico-Pratici di Musica: An Annotated English Translation and Study of Volume I*, trans. Angelo Frascarelli (Dissertation: Eastman School of Music, 1968), 408-9.

> When the motive has been found the whole composition must be crafted with this alone, without introducing anything new in it, or at most with a second motive or a countersubject intertwined with it...Since many times, the strict use of a single thought, of a single motion remains monotonous, despite all the art that is employed to manage it, there are two means to remedy such a drawback without prejudice to the unity of the melody. The first is to divide the entire period that forms the motive into two or three parts and to avail oneself of them as two or three different subjects, playing now with one, now with another until the end. The other is to sometimes use as a principal idea some passage that fortuitously arises by itself in the accompaniment. Thus, new ideas arise from those already proposed and established and that are strictly tied together with them, forming a single, very united whole with the earlier ones.[147]

First movements are meant to express a unity of thought and intent, while also providing enough variation to keep the listener engaged. Galeazzi thus advocates for dividing the motive into multiple parts, or mining figures introduced in the accompaniment as strategies for generating new ideas from the same material.

The form of the first movement arises out of a play of ideas, which can themselves generate more ideas from their parts. Rather than a top-down organization, the form is what coheres from this play of ideas. The form stands, at the end of the process, as a measure of the composer's ability to create a unified essay of thought. The ideas are expressions of the composer's imagination, over and above the understanding of the templates for notation, voice-leading, modulation, and harmony, that legibly shape and present these ideas. In any case, ideas are inalterably shaped and guided by templates for musical production, even in the 19th-century, when more focused attention is given to the abstraction of form, over and above the various schemata holding practices of both composition and performance in place.

As such, forms provide a measure of the person—the people, bodies, and minds,

[147] *ibid*, 356.

that produce and reproduce them; templates, on the other hand, work on the sub-personal level of materials, such as bodily organs (like the inner ear), unity/difference in sensation, on the level of rules guiding practice (including rules or schemes for counterpoint, *partimenti*, violin-playing, etc.). In the 19th century, musical forms and works become units of musical production that gesture towards the immutability and timelessness of the practice; they bury the more schematic, provisional templates for musical production, which operate at the level of practice, rather than at the level of person and nation.

2.5 Conclusion

Leopold Mozart and Francesco Galeazzi represented divergent pedagogical paradigms for musical practice. Galeazzi still entertained a broad, enlightenment understanding finding beauty in those theoretical and mechanistic aspects of music which replicated the perfection of the divine, mathematical universe. This points to some of the sympathies between Galeazzi and Tartini's perspectives, but it also connects Galeazzi with some of Mozart's contemporaries such as Lorenz Mizler, who found music a suitable medium for speculative research and invention.

What Mozart and Galeazzi's work have in common is that they both paved the way for 19th-century idealism in musical practice. Mozart did this by rationalizing details of bodily discipline and score-reading, engineering a more systematic approach to the performer's execution of virtuosic musical figurations. Galeazzi's broad overview of the musical templates, ideas, and forms operant in 18th-century music underscored the rationalization of both performance and composition. His identification of the musical idea as organizing the construction of larger forms marks a signal point in the shift from

the rhetorical paradigm of the 18th century, towards the formalist paradigm of the 19th-century which privileged musical structure as the primary vessel of musical meaning. Concurrent with this trend was the continued rationalization of bodily technique, and the repositioning of the performer as an executor of historical works and an interpreter of large-scale musical movements and forms.

CHAPTER 3

Contrapuntal and Classical Orders

The Paris Conservatoire was founded in 1795, in the wake of the French Revolution; its early years coincided with the Napoleonic Wars. The institution, closely tied to nationalist and military ideologies of the French Republic, was intended to democratize music education through strict curricula, setting up merit-based processes for admissions and matriculation. One of the enduring effects of this institutional shift was that—given the origin of the Conservatoire as a part of the National Guard—military modes of disciplinary and hierarchical organization pervaded several aspects of the Conservatoire's administration and pedagogy. Musicologist Kailan Rubinoff points to the effects that the Conservatoire had on regimes of bodily discipline, the collection and standardization of canonical works, the loss of improvisatory practice, and the institution of symphony orchestras.[148]

In contrast to the 18th-century Italian partimento school, the Paris Conservatoire began the modern, institutionalized trend of teaching virtuosic performance and composition as distinctly separate disciplines. Pierre Baillot's *L'art du Violon* (1835) is essentially a greatly expanded version of the Conservatoire's original *Méthode de Violon*, written by Baillot, Pierre Rode, and Rudolf Kreutzer around the time of the Conservatoire's inception. Baillot's *L'art* contains exacting prescriptions for bodily postures and positions – a method that Rubinoff links to the Conservatoire's military-

[148] Kailan Rubinoff, "Toward a Revolutionary Model of Music Pedagogy," *Journal of Musicology* 34, no. 4 (2017), 473-514.

inspired adherence to bodily discipline and administrative hierarchy.[149] Rubinoff points to the conservatory's origins as a National Guard training institute, explaining "how its organizational structure and pedagogical practices were modeled on the military, whose regimens, regulations, and 'empirical and calculated methods' instituted discipline by 'controlling or correcting the operations of the body.'"[150]

This chapter registers the musical and corporeal effects of this social, administrative, and institutional shift in music pedagogy, through the analysis of violin works and treatises anthologized and created at the turn of the 19th century. My analysis of 18th-century violinist-composers (appearing in an early anthology for the Conservatoire) draws attention to their fluent employment of partimento fugue, combined with violinistic techniques and common conventions of form. My analysis of 19th-century works and treatises by Bartolomeo Campagnoli and Pierre Baillot, on the other hand, looks at the ways in which they focus on the study and acquisition of more determined formulations of virtuosic, bodily discipline.

I frame this shift as the movement away from the contrapuntal order of 18th-century music and towards the classical order most visibly enforced by the Paris Conservatoire. By "contrapuntal order" I mean the kind of skillset that learned musicians like Geminiani, Tartini, Mozart, and Galeazzi enjoyed—one, which combined knowledge of the composition, improvisation, and performance of music carrying several imitative voices. While counterpoint continued to be taught at the Paris Conservatoire, performance treatises reflect the increasing focus of performance pedagogy on bodily technique, to the exclusion of a more general partimento education. Within performance

[149] *ibid.*
[150] *ibid*, 477.

pedagogy, the shift towards a classical order moved away from the study of musical subjects, ideas, and voices, and towards the cultivation of one's own subjective voice, understood in relation to a pantheon of historical predecessors, or within a visibly hierarchical order such as the symphony orchestra. This was a shift from the ability to hold several musical identities in one's mind and fingers, and towards an order emphasizing unity in individual voices, collective culture, and historical canons.

The Paris Conservatoire exemplifies what Marxist theorist Louis Althusser called the "Ideological State Apparatus" (or ISA). [151] As an apparatus of the French Republic, the Paris Conservatoire enforced its rules through ideology—military hierarchy, curated understandings of musical history, strict forms of bodily discipline, etc. As subjects of an ISA, Conservatoire pupils found their personal identities within the ideological framework of the institution. Jean Baptiste Cartier's description of his 1798 anthology as the most "classic" for the violin, or Baillot's insistence that his pupils model themselves on the great violinists of the past, indicate the direct modes of imitation and emulation through which individuals found their place in their historical and present hierarchies, as musical subjects. This formalization of both a musical corpus, and the bodies of the performers who maintained it, was accompanied by an intensified romantic discourse of individual style and spirit. I argue that this spiritualized language, seemingly at odds with the military-inspired hierarchies of the Conservatoire and its methods of bodily discipline, was in fact afforded by the trend towards standardized canons, administrations, and methods of bodily discipline, which served as measures of the

[151] Louis Althusser, *On the Reproduction of Capitalism: Ideology and Ideological State Apparatuses* (London: Verso, 2014).

individual.

Finally, I begin to develop a further argument in my analysis of movements in Cartier's anthology, related to the topic of romantic amnesia. I point to the ways in which the kinds of individualist and idealist rhetoric espoused by Baillot and the violin school at the Conservatoire were co-emergent with the forgetting of material techniques of performance practice undergirding the compositions of 18th-century German and Italian violinist-composers like Bach, Geminiani, and Tartini. The implications of the 19th-century re-interpretation of Bach are discussed further in Chapter Four, but the interrelation of romantic rhetoric and romantic amnesia here helps convey the stakes of the shift from 18th-century practice – in which musicians combined instrumental skills with improvisation and composition – to a 19th century pedagogy emphasizing bodily technique and the interpretation of an anthologized museum of musical works. That is, I continue to attend to the ways in which these pedagogues adapt older forms of knowledge to fit with their own goals of standardizing and unifying pedagogical order in their present.

3.1 Fugal Writing in the Cartier Manuscript

Here I analyze sonata movements by Arcangelo Corelli, Geminiani, Tartini, and J.S. Bach, which were collected in Jean Baptiste Cartier's anthology, and dedicated to the Paris Conservatoire. My analysis provides a snapshot of the overlapping templates for composition in the early 18th century, which operate at the level of the music-making body, schematic bits of counterpoint, and compositional structure. The analysis of movements by Corelli, Geminiani, Tartini, and Bach, sets the foundations for my later

analysis of the musical/treatise literature of Campagnoli and Baillot.

Jean Baptiste Cartier (1765-1841) was a student of Viotti's in Paris; his cohort included Pierre Baillot, Rudolf Kreutzer, and Pierre Rode, who established the Paris school of violin-playing. His anthology was published as part of his violin method, and included works for the violin (both solo and accompanied) by fifty-nine Italian, French, and German composers. This treatise was dedicated to the newly established Conservatory of Music—a letter from an administrative panel including the composer and later president of the conservatory, Luigi Cherubini, accepted the gift, on the basis of its collection "of an infinity of rare and precious pieces."[152] The Paris violin school came to establish itself as a central European model, which, like Cartier's anthology, drew on a combination of Italian, German, and French musical styles.

Cartier's aim in collecting these pieces was to position his anthology as "the most classic [*l'ouvrage le plus classique*] that has ever been published for violin."[153] The Paris Conservatoire was an essential force in the institutionalization of a classical paradigm, which revolved around the reverential imitation and reproduction of historical genius.[154] Gjerdingen, for example, describes the classicizing gestures of the Paris Conservatoire by drawing attention to the connection between the Roman "classics" of literature and music: "The Rome of Palestrina and Corelli takes the same place in music that the Rome of Cicero and Virgil had taken in literature [...] the highest prize awarded to a composer

[152] Jean Baptiste Cartier, *L'Art du Violon* (Paris: Decombe, 1799), administrative letter in Preface.
[153] *ibid*, Preface.
[154] *ibid.*

at the Paris Conservatory would be the Rome Prize [...]"[155] Cartier clearly understood the power of these consolidating gestures, comparing his collection of musical works to "a gallery containing the most beautiful paintings by Raphael, Rubens, Poussin, etc.."

Cartier's publication marks the first of a few, now canonical pieces, including Tartini's "Devil's" Sonata and J.S. Bach's C Major Fugue for unaccompanied violin. This marked the first edition of any of Bach's solo violin music, which had previously only circulated in manuscript. Bach's fugue is printed next to another solo violin fugue by Stamitz, as well as a few movements from the accompanied Sonatas of other violinist-composers. Ignoring their original titles, Cartier labels movements (from the Sonatas of Geminiani, Castrucci, and Branche) as "fugues." This draws attention to the slippery nature of the term—while many of those movements he labels a fugue are not strictly fugues, they do exhibit either fugal textures or techniques of partimento fugue, repeating opening subjects at the fourth or fifth throughout several registers of both the violin and accompanying parts. Several other accompanied Sonata movements by Corelli, Tartini, Valentini, and Mondonville, demonstrate similarly fugal textures, and a strict canon at fifths appears in the middle of a Largo by Emanuelle Barbella. It is this consistent attention to maintaining counterpoint that is one of the primary focal points of my following analyses.

While many of the anthologized pieces employ fugal writing and textures, I have chosen to analyze four fugal movements by Corelli, Tartini, Geminiani, and Bach, published in Cartier's *L'art*. The composition (and in some cases publication) of these pieces spans the first three decades of the 1700s—from Corelli's Opus 5 Sonatas,

[155] Robert Gjerdingen, *Child Composers in the Old Conservatories: How Orphans Became Elite Musicians* (New York: Oxford University Press, 2020), 32.

published in 1700, through Bach's composition of the unaccompanied violin Sonatas and Partitas in Cöthen around 1720, to Tartini's publication of his Opus 1 Sonatas in 1734. These movements demonstrate the ways in which the violin—whether solo or accompanied—carries fugal subjects and contrapuntal voices in two, three, and four parts.

I have chosen movements from these four composers (Corelli, Tartini, Geminiani, Bach) for a number of reasons. Both Geminiani and Tartini sought to replicate the popular success of Corelli's Opus 5 sonatas for violin and continuo bass, and each of their Opus 1 collections of accompanied Sonatas were in many ways modeled on Corelli's. Here I return to the music (rather than the treatises) of Geminiani and Tartini, while also showing the ways in which their compositional styles built upon Corelli's foundations. In particular, I examine the ways in which they follow similar templates, stitched together through familiar schematic *partimenti*, and mediated through violinistic techniques. As such, these composers leave a blueprint for weaving together harmonic and melodic components of fugal textures, through combinations of chord-playing and figured bass, virtuosic runs, string-crossings, pedal points, and arpeggiation.

Bach's C Major fugue for solo violin employs many of these same polyphonic techniques as the Italians, but expands them into a much lengthier binary form, which interleaves both fugal and episodic materials. The movement relies on extensive transformations of the fugal subject, employing techniques including inversion, stretto, and diminution to weave together its large-scale, quasi-narrative structure. While Bach relies on virtuosic, polyphonic techniques of violin-playing perfected by Italian violinist-composers, his attention to expansive musical forms sets this fugue apart from the other

movements here analyzed.

My analyses set up comparisons that become significant later in this chapter, as well as in Chapter Four. I illustrate gradations in composing between bodily figurations and musical forms. That is, while both Bach and the Italians employed techniques generated from the violinist's body and from formulaic *partimento* (which would similarly have been learned and improvised on the keyboard), Bach's movement exhibits a further attention to finding formal order and proportion over its expansive compositional structure. This contrasts to the Italians' movements, which continue to showcase the virtuosic spontaneity of the performing violinist. As I show later in the chapter, both of these approaches contrast again to the music of later violinists Bartolomeo Campagnoli and Pierre Baillot. Like Geminiani, Tartini, and Bach, these musicians' compositions were closely interlinked with their pedagogical writings and teachings. However, unlike the earlier 18th-century musicians, Campagnoli and Baillot's pedagogies were centered around the violinist's disciplined body, to the exclusion of a fluency in *partimento* composition and improvisation. My analysis of Campagnoli's G minor fugue, as well as his and Baillot's treatises, demonstrate this pedagogical and musical shift.

Analysis 1: Corelli's Allegro, Opus 5 Sonata 1

The *Allegro* from Corelli's violin Sonata # 1 (Op. 5) is the 18th example in Cartier's anthology. Corelli biographer Peter Allsop describes the extraordinary pedagogical influence of Corelli's Opus 5 in France and elsewhere, by way of reference to Cartier's treatise as well as Rameau's writings on harmony:

> As in Italy, the most enduring direct legacy of Corelli was the continued pre-eminence of Op. 5 as essential instructional material for the violin. The large anthology which forms the second part of Jean-Baptiste Cartier's *L'art du violon* (1798) includes the entire Sonata I, *La follia*, and parts of Sonatas 3, 5, 7, and 10, with the exhortation that 'Ces sonates doivent être regardés par ceux qui se destinent åa l'art du violon, comme leur rudiment: tout trouve, l'art, le gout et le savoir'. Beyond this, the consensus that Corelli's works offered an ideal means of acquiring the fundamentals of good harmonic practice recommended itself even to Rameau, whose *Dissertation sur les differrentes methods d'accompagnement pour le clavecin, ou pour l'orgue* (1732) uses the Adagio of Op. 5 No. 3.[156]

The popular success of Corelli's collection certainly had something to do with the way in which it brought together aspects of music observed by Cartier and Rameau: its knowledge of the violin, its exemplars of tasteful ornamentation, and its displays of a sound understanding of harmony.

Indeed, the composition of this *Allegro* displays the network of keyboard and violin skills, improvisation, and composition, outlined by Geminiani in his treatises (encountered in Chapter One). The movement begins with a three-measure subject, introduced first on the violin's upper string. The answer appears at the fifth, on the second string (the A-string). A series of double-stops in measure 3 introduce the subject answer at the fifth. This introduction of the answer on a lower string of the violin, accompanied by the upper string (often as a counter-subject), is characteristic of many of these 18th-century violin fugal sonata movements. As such, it maps the "voices" of the fugue on different strings—giving them characteristic timbres, and allowing the other strings or voices to continue on in accompaniment.

The subject re-appears in the bass continuo part at the up-beat to measure 5. The

[156] Peter Allsop, *Arcangelo Corelli: New Orpheus of Our Times* (North Chelmsford: Courier Corporation, 1999), 187-8.

latter part of this subject statement is accompanied by the violin playing double and triple-stops. This harmonic overlay, next to whatever chords the keyboardist chose to play based on the figured bass, demonstrates Corelli's ability to think both contrapuntally and harmonically, on both the violin and the harpsichord. The first four notes of the continuo subject are accompanied by the violin's suspensions/resolutions in double-stops. This figuration works well against the subject throughout the movement, and indeed constitutes a stock, affective phrase in the fugal literature.

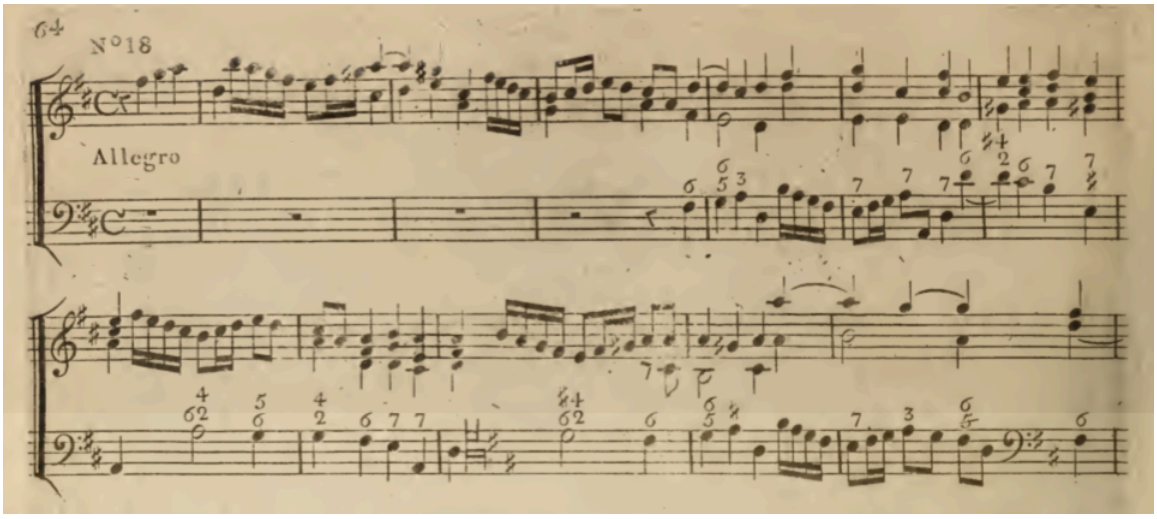

Figure 3.1: measures 1-12 of Corelli's *Allegro*, from the Cartier manuscript (1798)

The 7-6 suspension also becomes an important figure over passages with codetta-like elaborations:

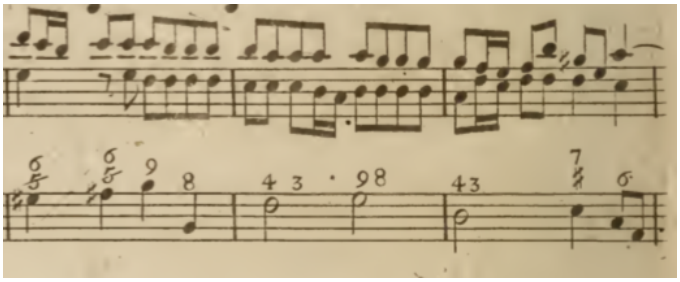

Figure 3.2: measures 22-24 of Corelli's *Allegro*, from the Cartier manuscript (1798)

In the upbeat to measure 18 a second motive is introduced in the top voice/string, answered in the second voice/string at the upbeat to measure 19, and introduced in the bass continuo at the upbeat to measure 22. Starting in measure 29, the bass begins a passage of running eighth notes moving around the circle of fifths. In measures 29-32, as seen above, Corelli writes in the characteristic passage of 7-6 suspensions, before moving to an arpeggiated passage in the violin.

In these passages, the violinist's more accompanimental suspensions and arpeggiations leave out motivic material from the two musical ideas or themes. The arpeggiated passage does not quote either of the motives, instead moving primarily step-wise in order to flesh out the harmonies over the four strings/voices of the violin. This lack of thematic material in the violin presumably leaves room for the continuo to extemporize more melodically, as Geminiani points out in his treatise on thorough bass. By contrast to the figured bass part, the violin part in these faster movements is almost entirely written out. The violinist's bowing choices in the arpeggiated sections here and in the four-bar, concluding Adagio might be their most notable moment of improvisatory freedom.

Starting in the middle of measure 44, the violin breaks out into a passage of running sixteenth notes, which features the same 7-6 suspension occurring throughout the rest of the movement in the violin. These suspensions are prompted by the re-introduction of the first four notes of the subject in the bass, starting at the pickup to measure 44 and continuing through measure 48. The familiar subject material facilitates the ornamental re-working of the suspensions over it. In the next sequence, the violin grafts triadic

figures over the bass line, moving harmonically with the continuo as a unit, rather than contrapuntally. This ends in measure 56, where the first four notes of the subject are picked up in the violin part, leading to the second theme in the continuo at measure 57. As such, this concluding re-statement of the primary and secondary motives represent the joining of the two as related musical ideas.

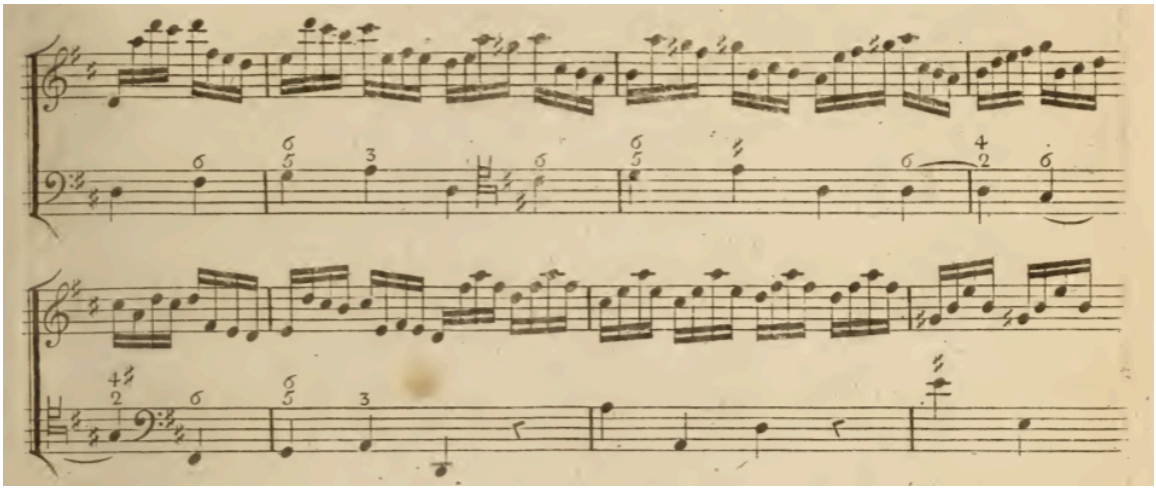

Figure 3.3: measures 44-50 of Corelli's *Allegro*, from the Cartier manuscript (1798)

In sum, Corelli's employment of contrapuntal, harmonic, and virtuosic techniques integrate the corporeal expressivity of violin-playing with familiar schematic patterns. While the movement does not necessarily display the same economy of materials as Bach, the subject is indeed fragmented and shared between the strings of the violin and the harpsichord. This movement does not settle into a clear binary form; its drama rather unfolds through the transference of the subjects between registers and instruments, and through the contrast and eventual union of the two themes.

Analysis 2: Tartini's Allegro, Opus 1 Sonata 1

The Allegro from Tartini's first Sonata, Opus 1, appears as number 74 in Cartier's anthology. This movement contains many similar figurations and structures as Corelli's Allegro, following the *partimento* fugue convention of repeating the subject answer at the fourth or fifth. Musicologist Giorgio Sanguinetti points out that fugal composition and improvisation were considered "the crowning glory of any serious musical education"[157] in Italian conservatories of the 17th and 18th centuries. *Partimento* collections composed by musicians including Corelli's partner on the harpsichord, Bernardo Pasquini, used the schematic *partimento* bass lines and melodies to slowly work musicians towards the composition of counterpoint and fugue. This common training is evident in the work of Corelli, Tartini, Geminiani, and several others throughout the Cartier manuscript.

The opening, two-measure subject of Tartini's *Allegro* features a descending scale pattern, which becomes material for later melodic and accompanimental elaborations throughout the movement. For example, a descending, five-note scale is introduced alongside the answer on the upper string of the violin. The rhythm and length of this scale is modified throughout the movement.

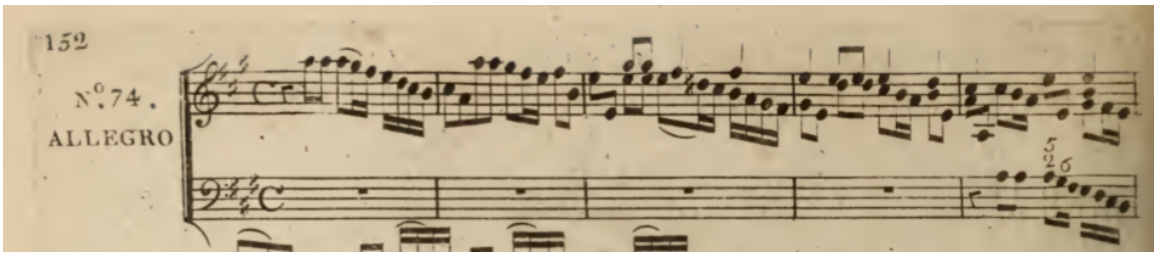

Figure 3.4: measures 1-5 of Tartini's *Allegro*, from the Cartier manuscript (1798)

[157] Giorgio Sanguinetti, "Partimento-Fugue: The Neapolitan Angle," from *Partimento and Continuo Playing in Theory and in Practice*, ed. Thomas Christensen (Leuven: Leuven University Press, 2010), 22.

Corelli's Allegro featured 7-6 suspensions in the violin—an opportunity for the violinist to showcase a sensitive control of the bow pressure as the dissonance resolves. Tartini also adds passages of suspensions; at measure 22, the violin moves through a series of 2-3 suspensions over a circle of fifths movement in the bass:

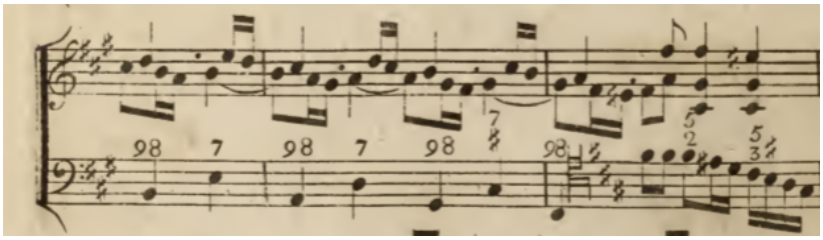

Figure 3.5: measures 22-24 of Tartini's *Allegro*, from the Cartier manuscript (1798)

As part of a preparatory cadence towards the end of the movement, Corelli's familiar, violinistic 7-6 suspension returns in measure 59 over a Romanesca bass line:

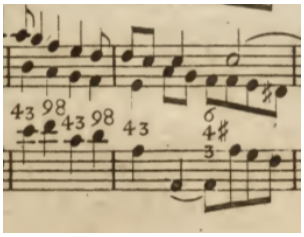

Figure 3.6: measures 59-60 of Tartini's *Allegro*, from the Cartier manuscript (1798)

The colorful 7-6 suspension which occurs throughout the work of Tartini and Corelli also appears in much of the earlier viol repertoire. Purcell's fourth Fantasia, for example, features a chain of 7-6 suspensions in the upper two voices that cadence the first section of the movement.

In Tartini's movement, the continuo bass sometimes carries the subject, but is more often relegated to an accompanying role—Corelli's *Allegro*, by contrast, distributes parts of interest more equally between the violin and bass. In Tartini's *Allegro*, the bass often moves along the circle of fifths, or according to other formulaic galant schemata such as the Fonte, employed in a number of passages throughout:

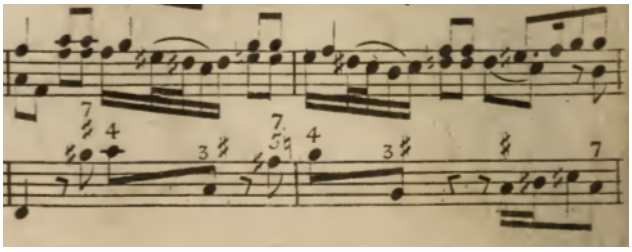

Figure 3.7: Fonte in measures 29-30 of Tartini's *Allegro*, from the Cartier manuscript (1798)

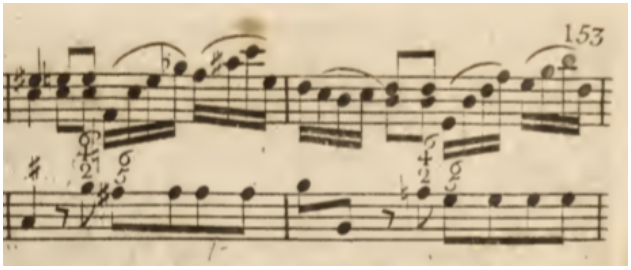

Figure 3.8: Fonte in measures 34-35 of Tartini's *Allegro*, from the Cartier manuscript (1798)

As in Corelli's movement, Tartini's violin part eventually breaks out into a virtuosic passage of sixteenth-notes. The slurs turn these fast runs into quasi-arpeggios—an idea reinforced by the fact that the bottom notes of the violin are the same indicated in the bass. The top notes of the violin's arpeggios again feature the descending scale that appears in the subject. The bottom notes in the passagework moves in unison with the

bass line, first as an ascending scale (in contrary motion to the top voice), and then falling into another Romanesca line featuring the falling fourth, rising second:

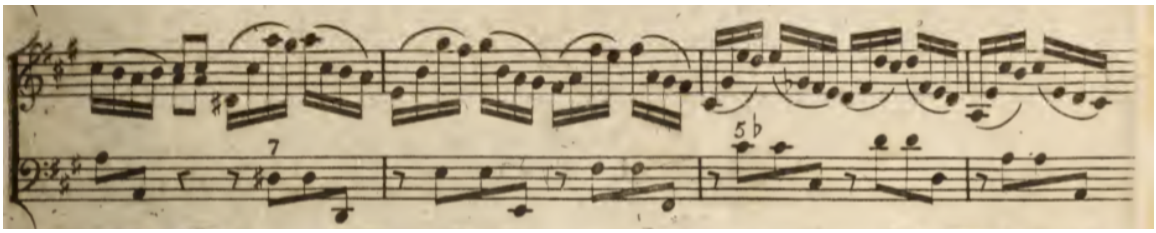

Figure 3.9: Measures 36-39 of Tartini's *Allegro*, from the Cartier manuscript (1798)

This passagework again displays the integration of harmonic, motivic, and violinistic thinking in Tartini's writing. That is, within the violin's running sixteenths, he is still able to establish the feeling of voices moving in unison or against the bass line.

Again following Corelli's template, the movement ends with a short, four-bar Adagio. This Adagio features predominately chromatic movement, in suspension against the descending scale from the opening subject in the violin's upper voice. As in Corelli's writing, Tartini demonstrates the ways in which his composition fluidly moved between the rules of *partimento* fugue, stock galant phrases, knowledge of figured bass and harmony, and a fluent understanding of the violin's affordances.

Analysis 3, Geminiani's Allegro, Opus 1 Sonata 1

Geminiani's Allegro from his first Sonata Opus 1 appears as number 122 in the Cartier anthology, where it is titled "FUGA." The movement does employ more elements of fugue than the earlier examples, such as the stretto technique and a proper counter-subject. Unlike the first two examples by Corelli and Tartini, this movement begins with the figured counter-subject in the bass, which explicitly locks the introduction of the

subject into a harmonic grid. While all of these movements have demonstrated the integrated nature of counterpoint, harmony, and melody in this writing, Geminiani's harmonized subject already weaves harmony with counterpoint.

The opening lines in the violin again present the subject and answer—the introduction of the counter-subject in the third measure puts three voices in the violin line. By briefly including subject, counter-subject, and answer all in the violin part, Geminiani approaches the three and four-voice textures implied in Bach's solo violin fugues.

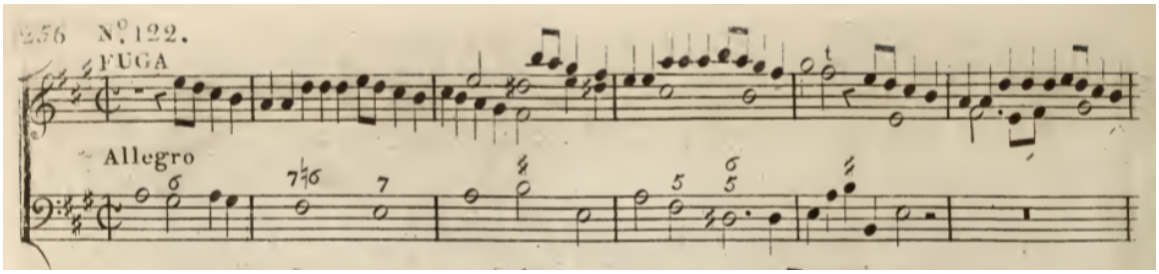

Figure 3.10: Measures 1-6 of Geminiani's *Allegro*, from the Cartier manuscript (1798)

In measure 7, the instruments reverse roles, with the violin playing the counter-subject in the top voice over the bass continuo subject. The violin also holds a second voice, which begins to trade imitative gestures with the top voice after the counter-subject dissipates.

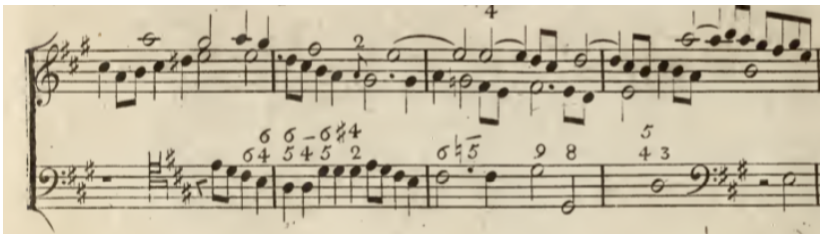

Figure 3.11: Measures 7-10 of Geminiani's *Allegro*, from the Cartier manuscript (1798)

Similar figurations appear in Bach's C Major solo violin fugue, as imitative gestures traded over different strings of the instrument give the impression of a multi-voiced ensemble.

Geminiani demonstrates his talent for variation-writing (encountered in his treatise in Chapter One), transposing florid runs over the counter-subject at measures 11 and 20. In measure 21, a short stretto section gives way to sequences in the violin part, which fragment the recognizable eighth-note figure in the subject. This gesture is again traded in an imitative way between the E, A, and D-strings of the violin.

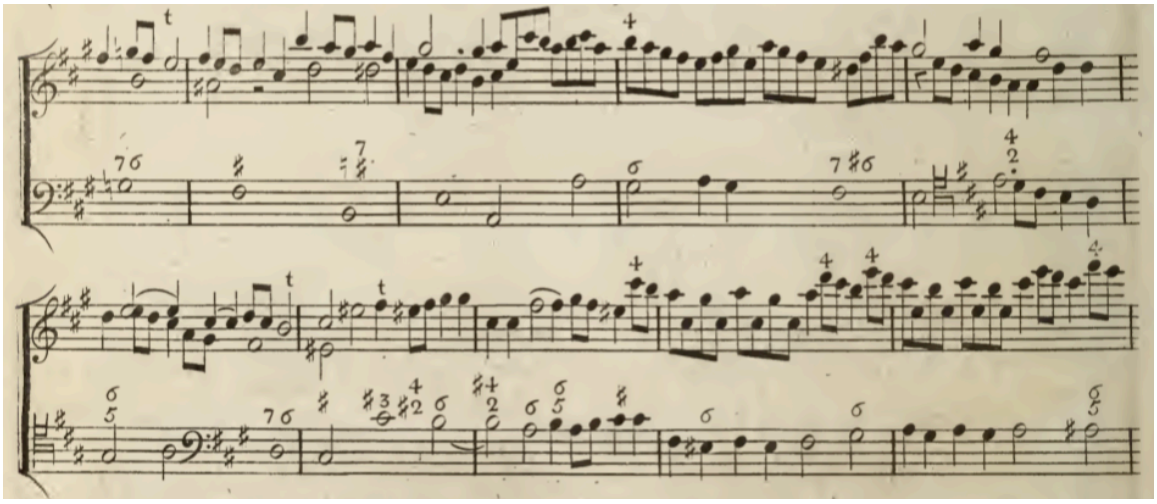

Figure 3.12: Measures 17-26 of Geminiani's *Allegro*, from the Cartier manuscript (1798)

In the sequence at measures 25-27, the violin moves stepwise up with the bass as a harmonic unit (rather than in counterpoint). The string-crossings in the violin allow the violinist to maintain a pedal point, first at the C#, then at the E, and finally at the F# in measure 27. This is a technique again employed by Bach in the C Major fugue—a way to create a pedal-point over which an upper voice can carry a moving line.

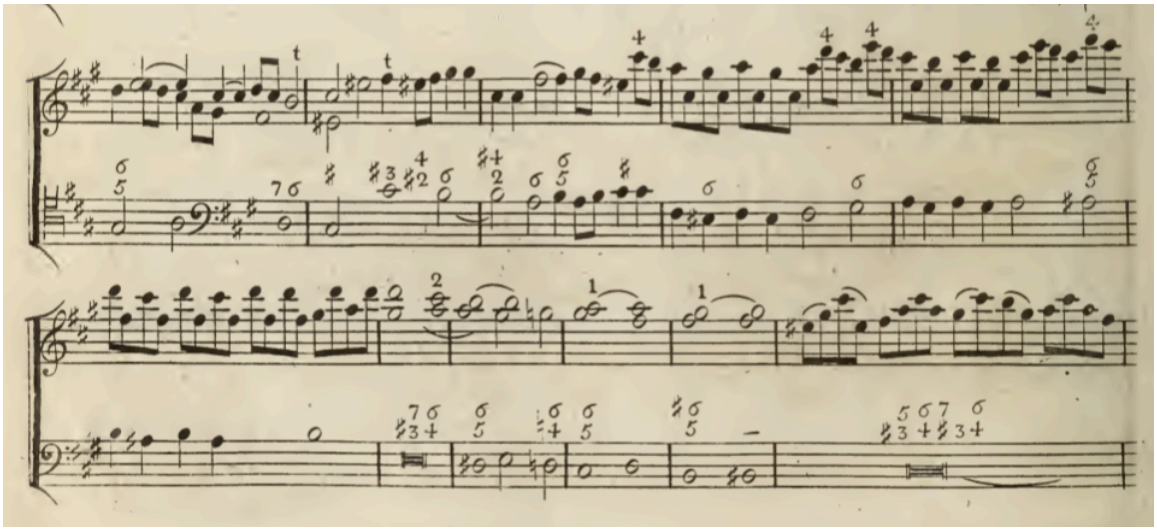

Figure 3.13: Measures 22-32 of Geminiani's *Allegro*, from the Cartier manuscript (1798)

The following sequence (starting at measures 32) puts the pedal point in the top voice (C# and B), and adds more notes between the period repetition of the pedal. The occasional displacement of the pedal note from the third to second note of each four note figure creates more rhythmic variety. Both employments of the pedal-point allow the violin to carry multiple voices and lines without using any double-stops or chords.

Like Corelli and Tartini, Geminiani uses suspensions in the violin part as an expressive, violinistic texture. Measures 28-31 features a series of 2-3 suspensions—part of a passage in which motivic elements drop out, allowing the bass continuo to perhaps improvise melodically without taking away from the violin. The familiar pattern of 7-6 suspensions also returns at measures 49-50. At measures 59-60, 7-6 suspensions signal the cadential close of the movement, along with a partial return of the subject in the violin's second voice.

In other parts of the movement, bits of the original subject are inverted. For example in measure 38, the falling eighth-note figure in the subject is recast as an

ascending figure, repeated throughout measures 39 and 40:

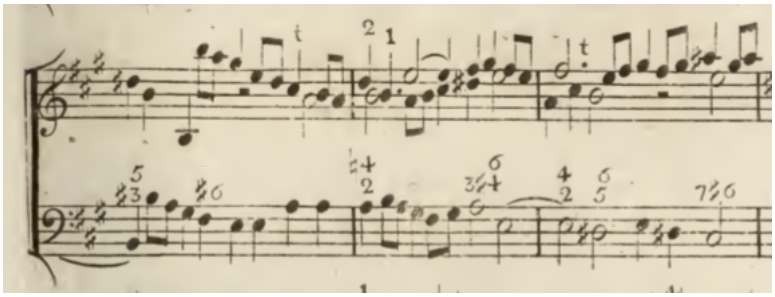

Figure 3.14: Measures 38-40 of Geminiani's *Allegro*, from the Cartier manuscript (1798)

Although Geminiani moves quite far away from his original subject, his use of stretto, inversion, and pedal points again signals the ways in which his writing, more than Corelli or Tartini's, makes a stronger case for its identity as a fugue (as indicated in Cartier's "Fuga" title for the movement).

Analysis 4: Bach's C Major Fugue, BWV 1005

Bach's C Major fugue appears at the end of the Cartier manuscript, example number 140 in the volume. Given that Cartier's manuscript was the first formal publication of any of Bach's solo violin pieces, one might think of Cartier as instrumental in the revival of Bach's music, which had profound implications for the development of 19th-century musical culture. Bach's music, in the 19th and 20th centuries, became a romanticized symbol of transcendence, and was directly contrasted to the music of Italian violinist-composers like Corelli and Tartini. The influential 20th-century violin pedagogue, Leopold Auer, makes the distinction between Bach and Corelli/Tartini: that these latter Italian composers composed "out of the violin," whereas Bach's polyphonic

style was "a product of pure inspiration, of the highest idealistic invention."[158] In fact, as I endeavor to show, much of Bach's writing for violin drew from the same material techniques pioneered by the Italian violinists. It was precisely through his knowledge and study of the instrument and its affordances, that he was able to render the large-scale polyphonic machinations represented in his C Major fugue.

Given the incredible influence of Corelli's violin sonatas throughout the 18th century, they almost certainly served as some kind of model for Bach's violin music. The most visible evidence of this is Bach's adoption of Corelli's op. 3 no. 4 in his BWV 579, in which Bach takes the short imitative trio sonata and elaborates it into a longer fugue. As is evidenced in the C Major violin fugue, Bach also draws from many of the violin techniques – arpeggiation, pedal points, thick chordal textures, and episodic writing – which are developed in the Sonatas of Corelli and his pupils. Bach was of course also drawing upon earlier polyphonic music for solo violin by German composer-violinists including Heinrich Ignaz Franz Biber and Johann Paul von Westhoff. His C Major fugue provides a synthesis of Italian and German influences—the concerto-like forms of Vivaldi, the violinistic techniques and melodic devices of Corelli, and the through-composed violin counterpoint of Westhoff.

Bach's fugue also draws from the partimento fugue, which musicologist William Renwick defines as "the essential link between a basic harmonic framework and an elaborative contrapuntal texture."[159] Partimento fugues provide sketches of fugal subjects, answers, and bits of counterpoint, whose harmony/melody is indicated by

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[158] Leopold Auer, *Violin Master Works and Their Interpretation* (New York: Carl Fischer, 1925), 21.
[159] William Renwick, *The Langloz Manuscript* (Oxford: Oxford University Press, 2001), 6.

provisional figured bass markings. Rather than fully fleshing out fugues, these exercises trained the musician to compose or improvise their contrapuntal realizations, and they provide a pedagogical link between the Italian partimento training and the polyphonic writing of German composers (both organists and violinists).

One of the largest extant collections of partimento fugues is the Langloz manuscript, which bears a suspect attribution to J.S. Bach. Whether or not this attribution is correct, these exercises were part of Bach's immediate environment, and helped show the manifold connections between thorough bass, partimenti, and through-composed counterpoint. As Bach scholar David Ledbetter points out, this D Minor fugue by Johann Pachelbel (who taught J.S.'s eldest brother, Johann Christoph) employs patterns almost identical to the subject and counter-subject of Bach's C Major fugue. Bach's counter-subject appears in the lower voice, and descends from A4 down to E4 before ascending back up to a G4 (resolving the end of the subject). On top of this descending chromatic line, the subject outlines a rising-third, falling-fourth pattern, which creates patterns of tension and resolution. Pachelbel similarly employs a descending chromatic line in the middle voice. The upper voice, like Bach's subject, also begins at a third above the first note of the chromatic scale, and follows the same rising third, falling fourth sequence. Pachelbel adds a third, lower voice in canon with the upper voice—a possibility afforded on a keyboard instrument, but tricky to produce on the violin.

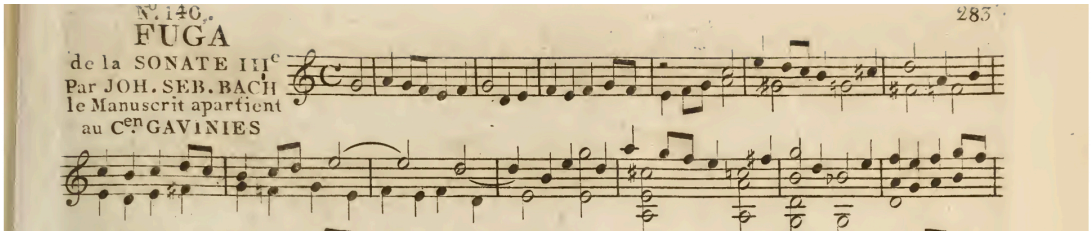

Figure 3.15: Opening measures of Bach's *Fugue*, from the Cartier manuscript (1798)

Ledbetter also shows the manner in which the 25th fugue of the Langloz manuscript provides an example that functions very similarly to Bach's subject and counter-subject in the *al riverso* section of the C Major fugue. The partimento example features a rising scale in the bottom voice, against the pattern appearing in the earlier examples, but here in inversion as a falling third and rising fourth. When the rising scale reaches F4, it jumps up a fifth to C5 and begins a downward chromatic scale, which features the earlier rising third and falling fourth pattern. In measure 214 of Bach's C Major fugue, the inverted counter-subject appears in the upper voice, moving chromatically from G5 (m. 214) to C6 (m. 217). The subject appears in inversion, beginning in the second half of measure 213 and ending with the four-part C Major chord on the downbeat of measure 217. In its inversion, the subject re-iterates the first part of the Langloz fragment, moving up the fourth and down the third. Similarly to the example in Pachelbel's fugue, the inverted subject briefly appears in loose canon between the second voice and the bottom voice. Loose, because the bottom voice only executes the barebones rising fourth, falling third pattern, without any passing-tone ornaments, and dropping out in the second half of measure 216.

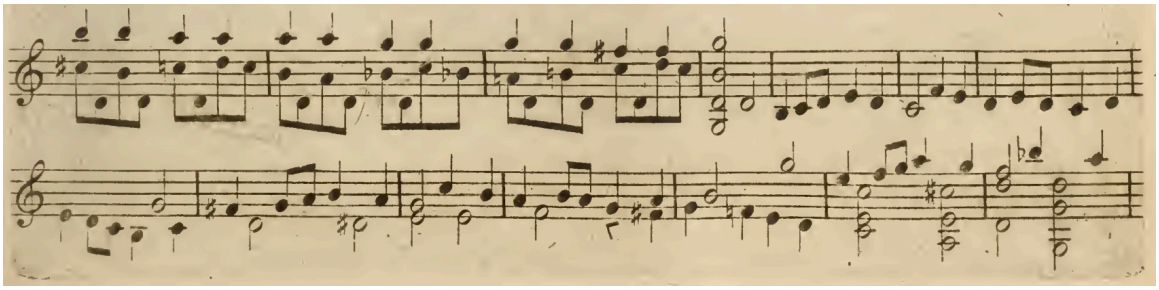

Figure 3.16: Inverted subject in Bach's *Fugue*, from the Cartier manuscript (1798)

The first fully fledged episode of Bach's fugue (i.e. the "solo" section beginning at m. 66) demonstrates Bach's ability to move rapidly between different musical ideas and sequences, anchored by specific pedal points or interval relations, and maintaining connections to the rhythmic figures introduced in the fugal subject. Measures 66-71 consist of a sequence of three, two-bar figures, moving down in stepwise motion, but maintaining a common pedal tone at the low G. The characteristic sixteenth-note turn in the first beat of each figure represents a rhythmic diminution of the eight-notes in the subject.

The harmonic valence of this opening sequence is rather simple (sketching arpeggios of C Major, G Major, and D7 chords), suggesting a kind of improvisatory warming up. In the next sequence, m. 72-83, Bach introduces a figure with a recurring tritone, introduced in the D7 chord of the previous sequence (that is, the interval between the D7's F# and C natural). While the rest of the figure changes in each iteration, the tritone remains constant and recurrent, and helps to track the circle of fifths movement through measure 77. In measure 78, the sequence is inverted; the tritones, along with the rest of the figure, move down in stepwise motion.

In the absence of a figured bass or pedal tone, this tritone plays an important anchoring role in this quasi-improvisatory, episodic fantasy. Beyond moving the harmonic texture past the diatonic first sequence, the tritone indexes the harmonic motion and rhythm of this kaleidoscopic passage. Like the open G pedal tone in the preceding sequence, or the G# pedal tone in the following one, the tritone marks a familiar aural and physical increment. This familiar interval could have anchored an improviser's short-term memory in the schematic piecing together of these passages. Bach's rapid

movement between different sequences, each revolving around pedal points or anchoring intervallic patterns, gives contextual clues about his fluency in stringing together related but distinct musical ideas.

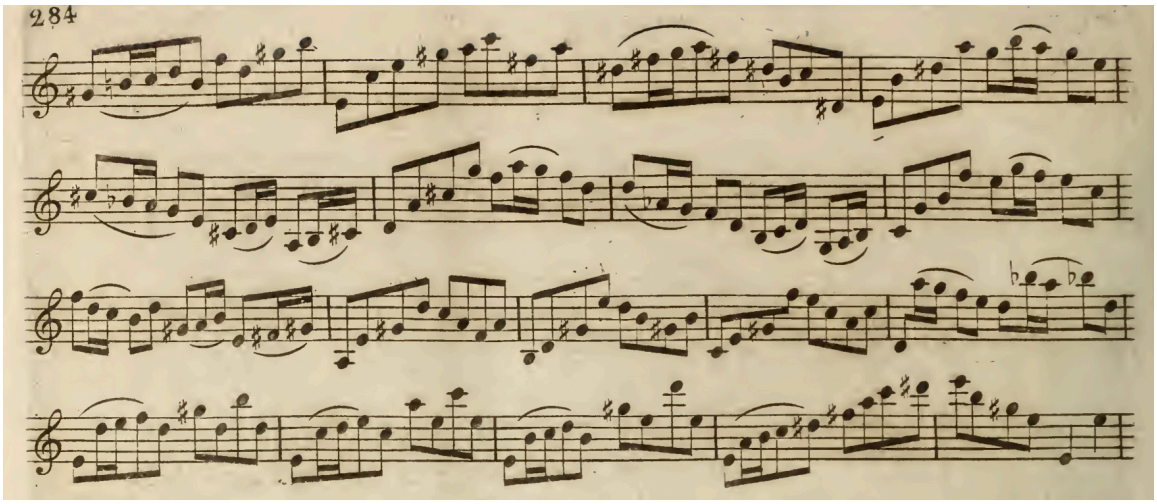

Figure 3.17: Measures 75-92 of Bach's *Fugue*, from the Cartier manuscript (1798)

The second and third episodes more explicitly weave the fugal subject through improvisatory sequences, which cycle more rapidly between ideas. Episodic passages like the one show in Figure 3.18 demonstrate Bach's ability to weave motivic materials together with more improvisatory fantasies, creating and maintaining multiple voices across strings in arpeggiated sequences. This draws on the same kinds of techniques of string-crossings and pedal points seen in the sonatas of Corelli, Tartini, and Geminiani, expanded and varied across different time scales. Here, the pitch material of the subject is maintained, although its rhythm is transformed. This abstracted subject is offset against a voice on the violin's lowest string, which marks the descending, chromatic counter-subject. The same thing happens in measures 179-183, with the subject appearing at the fifth scale degree. These sequences counterpoint subject and counter-subject melodically

rather than harmonically, using string-crossings rather than double-stops to mark different voices. Following these sequences, Bach employs another string-crossing technique, this one playing the fugal subject in double-stops over a pedal point of the open D string.

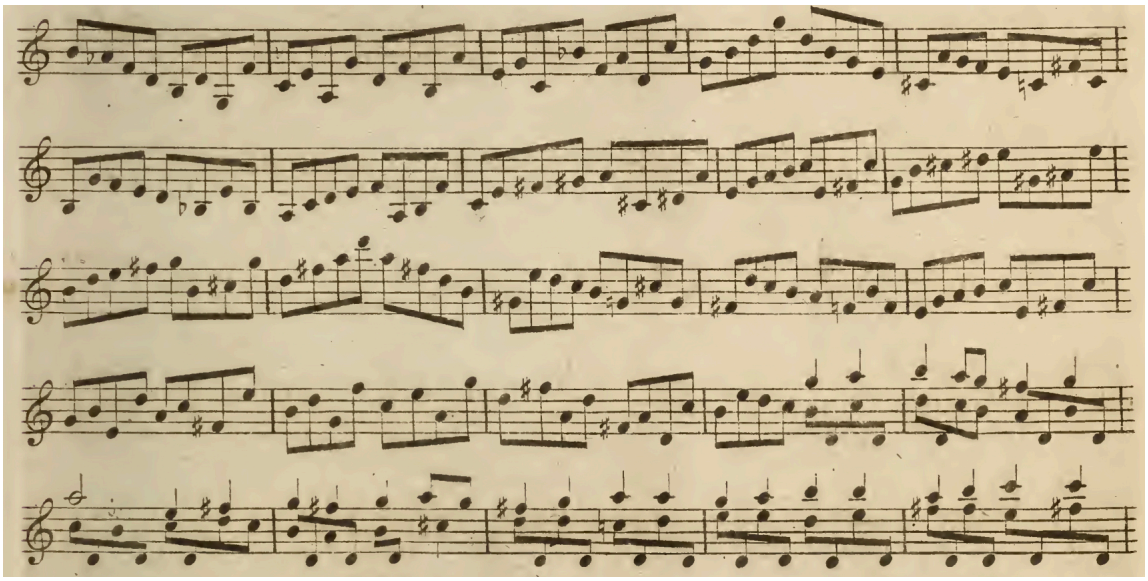

Figure 3.18: Measures 168-192 of Bach's *Fugue*, from the Cartier manuscript (1798)

These usages of familiar violinistic techniques including arpeggiation, string-crossing, and melodic sequences, facilitate the creation and maintenance of multiple voices on the solo instrument. Bach uses these techniques in order to string together sequences, and beyond this, inserts the subject and counter-subject into more episodic, quasi-improvisatory materials. In the work of Corelli, Geminiani, and Tartini, the episodes and fugal sections exist more discretely, although the presence of figures in the bass leave open the possibility that the continuo player might extemporize using motivic material from the subject/counter-subject.

Another feature of Bach's fugue that distinguishes it from either the *partimento*

fugues in the Langloz manuscript or the Allegros of Corelli, Tartini, and Geminiani, is its large-scale, binary form. Ledbetter points out its similarity to the fourth Brandenburg concerto, with tutti sections comprised of fugal statements, solo sections comprised of episodic material, and a written out da capo conclusion. Beyond this, the movement hinges on the inversion of the subject just beyond the halfway point of the fugue. This resembles a vast expansion of the structure of Johan Paul von Westhoff's Gigue in A minor for solo violin—another binary form pivoting around the inversion of the primary motive.

The binary nature of the fugue, as well as its comparative length, position the movement closer to the large-scale concerto and sonata forms that dominated instrumental music in the late 18th and early 19th centuries. However, rather than the kinds of thematic development and modulation that the subject of a sonata form might go undergo, the fugal subject has a more laborious, grinding voyage. It peeks through the soli episodes, builds upon itself in the stretto tutti, is de-familiarized through inversion, and returns home in the da capo reprise.

Bach's formal innovations—telling stories through harmonic narratives in large-scale musical movements—carried over into the 19th century. As I show in the next section, however, the greater division of labor between composition and performance in 19th-century pedagogy meant that the fluent contrapuntal composition of earlier violinist-composers was by and large lost in the music and treatises of later ones. As such, Bach provides a link between an 18th-century approach to composition integrating a knowledge of bodily practices/affordances with familiar schema for composition and improvisation, and a 19th-century approach, in which compositional and bodily forms were

independently abstracted. The transcendental apotheosis of Bach's music in the 19th and 20th centuries was in many ways an effect of this division between musical and bodily thinking, insofar as a greater attention to bodily discipline and technique eclipsed knowledge of the music's material histories and influences.

3.2 Regimes of Bodily Discipline: Bartolomeo Campagnoli's Pedagogical Works

Here I turn to the work of Bartolomeo Campagnoli (1751-1827), a violinist from Cento, Italy, who traveled widely through Europe. All of Campagnoli's compositions for violin and viola are didactic works. Besides these, he published several duets and a series of string quartets, working with Breitkopf & Härtel during his years in Leipzig, where he served as principal violinist at the Gewandhaus Orchestra (1797-1818).

Campagnoli's pedagogical and musical literature takes an encyclopedic approach to cataloguing different templates and techniques for the violinist's virtuosic body, entraining all manners of bowing, hand positions, and scale and arpeggio figurations. Taken as a whole, it circumscribes the foundations for a 19th-century understanding of technique as an abstract structure, progressively built from first principles, and organizing the body's forms and gestures. Following violinists like Tartini, Geminiani, and Leopold Mozart, Campagnoli's pedagogical writings are not intended for a generic training in composing and improvising, but rather focus on more instrument-specific kinds of training. Campagnoli's *Nouvelle Méthode de la Mécanique Progressive du Jeu de Violon*, Op. 21 (published between 1808 and 1815), can be thought of as a vast expansion of Geminiani's *Art of the Violin* (1751). Like Geminiani's treatise, Campagnoli's *Méthode* lists textual explanations with corresponding notated examples which progressively build

upon each other to architect the disciplined body and mind of its violin student. Whereas Geminiani's *Art of the Violin* contains 24 such examples, Campagnoli's contains 250.

While its structure resembles an expanded version of Geminiani's treatise, many of Campagnoli's materials are drawn from Tartini's work, reflecting Campagnoli's studies with Tartini's famous pupil, Pietro Nardini (1722-1793).[160] Musicologist Sigurd Imsen has noted that Campagnoli reproduces some of the lessons and examples from Tartini's *Traité*, as well as excerpts from Tartini's letter to Maddalena Lombardini Sirmen. Imsen furthermore speculates that Campagnoli's fantasias and cadenzas in all keys drew from Tartini's *modi artifiziali*.[161]

In many cases, Campagnoli's reformulation of earlier violinists' knowledge indexes the shift from the experimental mindset of many 18th-century Enlightenment musicians towards the more practical performance pedagogy advocated by Leopold Mozart and gaining traction in the 19th century. Campagnoli's Lessons 237 and 238 inform the student of "The Third Sound" – the combination and difference tones discovered by Tartini while practicing double-stops on the instrument. Tartini's discovery of the *terzo suono* was a pivotal moment in his life's research – it affected and affirmed his understanding of music as an expression of divinity, becoming the basis for his mathematical-spiritual theory of harmony. One can imagine Tartini sitting at home in Padua (Quantz claims that he "withdrew completely from musical society for several

[160] Bartolomeo Campagnoli, *Nouvelle Méthode de la Mécanique Progressive du Jeu de Violon*, *Op. 21* (Leipzig: Breitkopf und Härtel, ca. 1808-1815), Preface.
[161] Sigurd Imsen, *The Tartini Style* (Dissertation: Oslo, Norwegian Academy of Music, 2016), 12.

years"[162]), slowly drawing the bow across two strings, adjusting his fingers ever so slightly, listening for these phantom tones, wondering about their physical or metaphysical status, and feeling intimately connected to the structures of the cosmos. Campagnoli's reframing of Tartini's idiosyncratic experiments as "the rule for testing the accuracy of intonation in the performance of double notes"[163] demonstrates the former's desire to bring this earlier work in line with his own project. Within Campagnoli's encyclopedic approach to cataloguing bodily techniques, older exploratory or experimental templates (such as Tartini's phenomenological research on combination tones) calcify as so many pedagogical and practical prostheses.

Analysis 5: Campagnoli's Fugue in G minor

Bartolomeo Campagnoli's six solo violin fugues Op. 10 sit somewhere between an emergent bravura tradition of violin-playing and the 18th-century partimento fugue tradition. He is less fluent in his employment of partimento fugue than the earlier composers whose works appear in Cartier's manuscript; Campagnoli substitutes in virtuosic, violinistic figurations for a sophisticated elaboration of fugal subjects. By cross-referencing Campagnoli's fugues with his violin treatise, I will demonstrate the ways in which abstracted templates for bodily technique in fact became building blocks for the composition of virtuosic violin pieces.

In particular, the comparison of Campagnoli and Bach's fugues illustrates a shift in solo violin-writing, from Bach's fluency in counterpoint and partimento fugue, to

[162] Johann Joachim Quantz, *On Playing the Flute*, trans. Edward R. Reilly (London: Faber and Faber, 1966), 324.
[163] Campagnoli, *Nouvelle Méthode*, 16.

Campagnoli's nascent emphasis on regulative and rationalized bodily techniques. As we saw, Bach's movement abstracts the fugal subject, weaving it into a dramatic large-scale form. What Campagnoli's movement abstracts is the performing body, ultimately using bodily technique as a generative structure for the kinds of *bravura* compositional figurations that were common in the 19th century. This dramatizes Galeazzi's narrative, seen in Chapter Two, of the increasing emphasis on abstract form within the increasingly dissociated disciplines of musical performance and composition.

In Campagnoli's G minor fugue, the subject is often left behind entirely as the piece cycles through series of virtuosic sequences. The drama of Campagnoli's movement has less to do with structural narrative and thematic transformation, and more to do with the imaginative virtuosity of a body. I suggest that scholars and performers might view Campagnoli's fugue as a structural exposition of the disciplined body, rather than of a musical form or narrative. In fitting with the 19th century trend away from improvisation, a performer might find virtuosic spontaneity in Campagnoli's *bravura* gestures, even as these figurations become more formalized, targeting specific bodily mechanisms and techniques.

Looking at Campagnoli's G minor, a barebones fugal scheme places subject entrances at the dominant (D), and at thirds above and below the tonic G (Bb and Eb), Campagnoli's episodic material is primarily motivated by the transposition of interval patterns and hand positions. The contrary motion counter-subject introduced in the fugue's answer additionally sets up an intensive exercise in double-stopped eighth notes throughout the rest of the movement. Finally, many of the voicings, arpeggios, and chord patterns are specially designed for maximal *bravura* effects, creating strings of

impressive triple-stops, or making giant leaps to three and four-part chords in order to emphasize the virtuosity of the violinist's bowing and sound production.

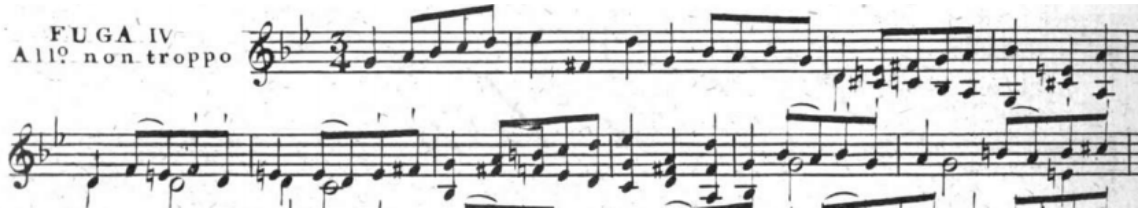

Figure 3.19: Measures 1-11 of Campagnoli's *Fuga IV*, Op. 10

Campagnoli makes the bodily-pedagogical focus of his fugues explicit, referencing them in his violin treatise. Example 156 is a "Study passing through the first three positions in different passages in double notes, and serving to familiarize the pupil with several passages practicable in the third position. The following work of mine may here be advantageously studied: *Six Fugues pour le Violon seul,* Op. 10."[164] Indeed, many passages within the fourth fugue feature this movement, in double-stops, across the first three hand positions. Measures 16-23, for example, feature an episodic elaboration of the subject's tail in sixths. The fingerings marked in these measures indicate that Campagnoli is explicitly thinking about this as a transposition of hand positions 1 through 3. Similar patterns transposed up or down the positions occur in m. 44-46 (shifting down), m. 71-76 (shifting up), and m. 76-78 (shifting back down).

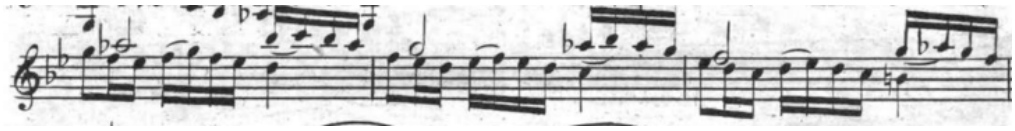

Figure 3.20: Measures 76-78 of Campagnoli's *Fuga IV*, Op. 10

[164] *ibid*, 13.

The fingerings marked in the passage m. 112-115 fixates on these shifting hand positions, at the expense of practical ease. Starting in the second beat of m. 112, Campagnoli instructs the violinist to jump to the fourth hand position, playing the a(4?) on the d string with the first finger. This note could be much more easily executed on the open a string, and furthermore, remaining in the fourth hand position for the next beat creates an awkward (but visibly virtuosic) jump from the lowest to the highest string. All of this is engineered so that the violinist will progress down to the third position in m. 113, second position in m. 112, and first position in m. 111. The virtuosic jumps over multiple strings are features of his violin method (and the bravura tradition more broadly). Examples 44-52 take different intervallic leaps as their object of study – examples 51 and 52 feature intervals greater than the octave (i.e. ninths and tenths), creating difficult leaps of the bow hand across strings. Example 87 elaborates on these leaps; Campagnoli describes it as a "Study for acquiring flexibility in the wrist, and facility in skipping from an upper to a lower string."[165]

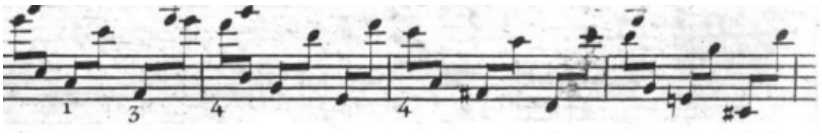

Figure 3.21: Measures 112-115 from Campagnoli's *Fuga IV*, Op. 10

[165] *ibid*, 10.

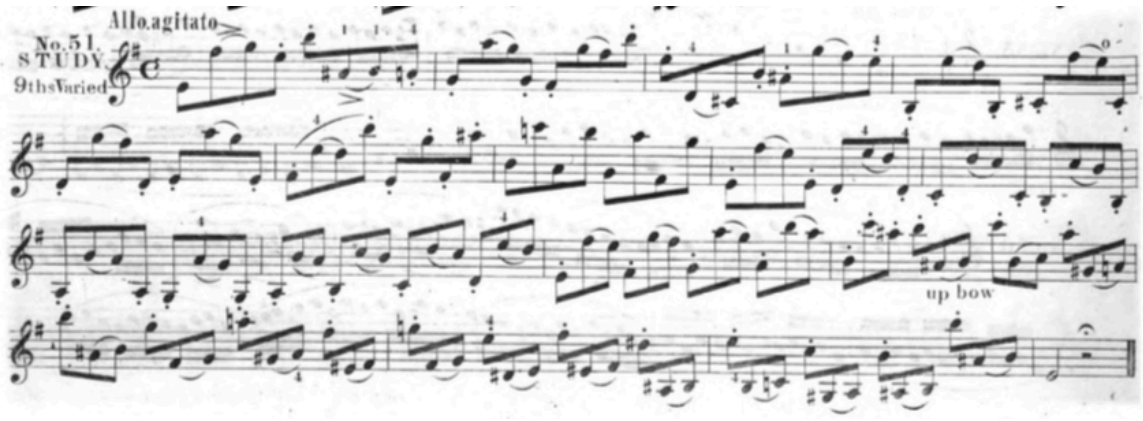

Figure 3.22: Study No.51 from Campagnoli's *Nouvelle Méthode*

Campagnoli's decision to make compositional decisions around hand positions does not end with the fugues – he composed a series of *Divertisements* (Opus 18) for violin designed to progress through seven positions and familiarize the violinist with the full range of the fingerboard. And in his violin method, he borrows a hand position notated by Geminiani to help the violinist acquire "the true Position of the Hand."[166] Example 24 in Campagnoli's method asks the violinist to hold the four fingers in this position, breaking the bowing up into combinations of single and double notes. The violin accompaniment (presumably played by the teacher) makes musical sense of this exercise meant for the violinist's body, creating crafted *galant* patterns of tension/resolution over an eight-bar phrase.

Tone (via bow control) becomes a central aesthetic concern for violinists throughout the 18th century, and from the 19th century through to the present day has been described as a direct manifestation or vessel of the performer's inner life.[167] Campagnoli himself discusses tone as something closer to a baroque or galant ornament expressing

[166] *ibid*, 1.
[167] Joachim and Moser, *Violinschule*, 6.

particular affects/emotions:

> These various gradations of tone produce the most beautiful effects in music, and are to melody what the *chiaro oscuro* and the distribution of light are to painting. It cannot be too strongly recommended to the pupil to observe these shades with scrupulous exactness; for the attainment of which, the study of sustained notes, gradually swelled and diminished, will furnish him with the necessary means. This study alone can make him master of his bow, form the quality of his tone, impart steadiness and breadth to his playing, and, in short, confer all that is requisite to make the mechanism of the violin obey the emotions of the mind.[168]

As Campagnoli points out, the expressive power of the tone's swelling and diminishing is heightened by a "scrupulous exactness" – a concord of "mechanism" and "emotions of the mind." This fluent association of emotion and mechanism is entrained through the corresponding notated studies, which elaborate four "divisions" of the bow. These include swells, diminuendi, and crescendi over a range of note values and rhythmic patterns. In examples 88 and 90, Campagnoli employs these divisions of the bow in the context of whole/half note suspensions. The tension expressed by tritone suspensions is marked by swelled accents of the bow, mid-way through the bow stroke.

Measures 93-102 of the G minor fugue feature a series of similar suspensions, deriving from the contrary motion of the answer and countersubject. The elongated note values (quarter and half notes, rather than the original eighth-note answer) emphasize the violinist's ability to sustain a broad tone over changing double-stops—a difficult and virtuosic task, as the changing string lengths affect the optimal bow position upon the string, and thus the tone quality as well. Though there is no accent indication in the score, these examples imply that the violinist should emphasize the harmonic tensions expressed by the tritones.

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[168] Campagnoli, *Nouvelle Méthode*, 6.

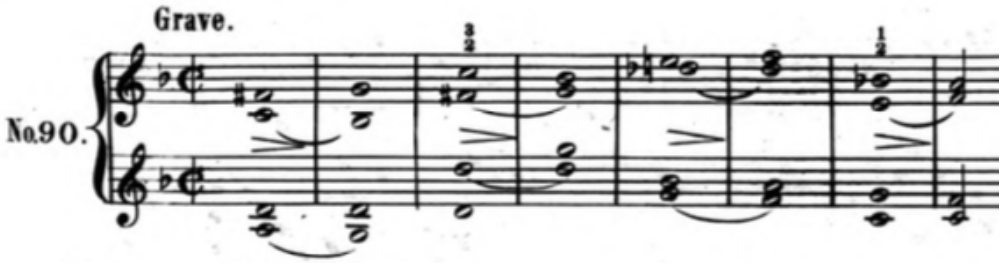

Figure 3.23: Study No.90 from Campagnoli's *Nouvelle Méthode*

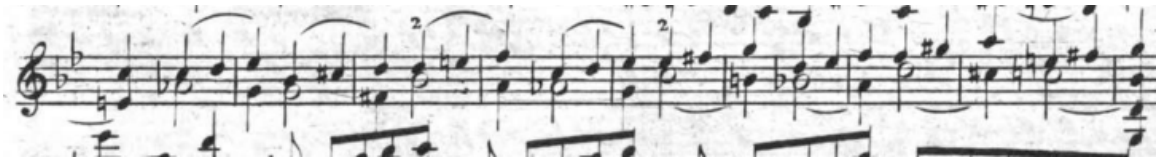

Figure 3.24: Measures 95-102 from Campagnoli's *Fuga IV,* Op.10

Another musical feature of this fugue generated from bodily technique is the series of triple-stops that occur in m.121-122. While the bottom voice might be interpreted as deriving from the rising eight-note scale of the fugal subject, the upper two notes have little justification by way of principles of voice-leading. The fact that they remain on the pitches A and C furthermore suggests that they exist for the *bravura* effect of what Campagnoli refers to in example 111 as "prepared chords," in which "The bow must be placed firmly on the lower string, and be rapidly drawn on to the upper one, in a vibratory and detached manner."[169] Example 117 addresses "full chords" of four notes, written consecutively, and "played with very bold and detached strokes of the bow, the four strings being thrown into full vibration."[170] This *bravura* technique closes the fugue, with a series of four consecutive chords in the tonic key of G minor.

[169] *ibid*, 10.
[170] *ibid*, 11.

My own interpretive decisions in playing Bach's partita largely center around considerations of large-scale form in order to create a sense of dramatic narrative for the subject's laborious journey. In Campagnoli's fugue, the challenge is to take these formalized, bodily figurations, and to imbue them with the appearance of imaginative spontaneity. For example, returning to measures 76-87 of Campagnoli's fugue, the fugal subject is here outlined in the initial three-bar (76-78) descending sequence, before being outlined again in the triple-stops of the following two measures (79 & 80). These vertical, harmonized iterations of the subject then clear the way for these sweeping, diminished arpeggios. I play them with some slight rubato, both to create a sense of improvisatory fantasy, and to distinguish them from the preceding three-part chords.[171]

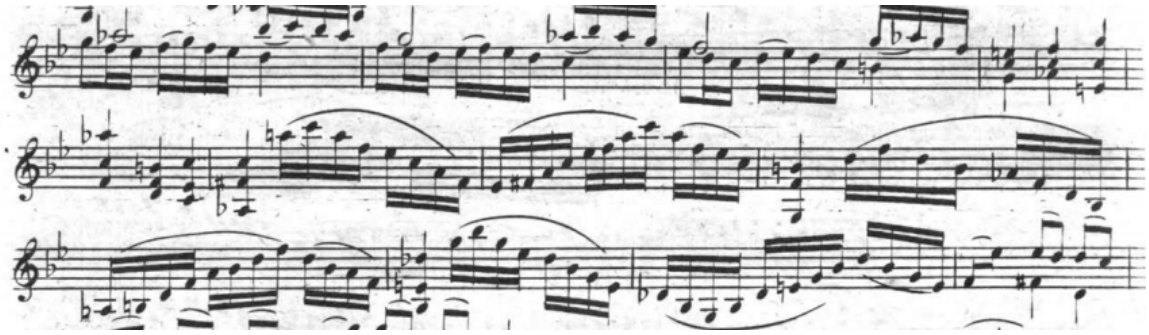

Figure 3.25: Measures 76-87 from Campagnoli's *Fuga IV,* Op.10

Campagnoli channels a violin-specific mode of musical experience and reflection into his creative process. Bodily technique, as a structural entity with its own order and organization, becomes a generative structure for musical thought and composition. Campagnoli's fugue is representative of the 19th-century move away from the compositional and improvisational fluency employed by many 18th-century musicians.

[171] My presentation on and performance of excerpts from both Campagnoli and Bach's fugues can be viewed at the following private link: https://youtu.be/LV_Lq0xd-eQ

This fugue also represents the development of the bravura aesthetic, marked by performers' closer attention to the body's relationship to sound, the mechanization of the body, and the animation of this mechanized body through seemingly spontaneous expression. I believe that Campagnoli's fugue asks the violinist to make these figurations – borne out of the virtuosic body – sound somewhat spontaneous, even as pedagogical methods like his literally write improvisation out of the practice. Perhaps precisely because of this focus on bodily technique and execution, creating a sense of spontaneity in performance became a priority in bravura and Romantic performance practice.

3.3 The Paris Conservatoire and its Méthode du Violon

Campagnoli's expansive and fastidious isolation of specific positions and parts of the violinists' body was part of an emergent pedagogical current expressed in the *Méthode du Violon*, written by Pierre Rode, Rudolphe Kreutzer, and Pierre Baillot, and published by the Paris Conservatoire. The *Méthode* was founded upon the separation of *mécanisme* and *l'expression* (mechanism and expression). Within this rubric, material practice was viewed as a prerequisite to the acquisition of sophisticated musical tastes, historical knowledge, and eventually one's own emotion and expression. The culmination of this education was the violinist who could reach the point at which "mechanism disappears, and the emotion reigns in its place: it is here that it carries away on art, on its own, making one forget the invisible object that carries the emotion."[172] As such, the teaching of bodily mechanism and technique was largely separated from questions of musical creation and performance in a way that it had not been in earlier pedagogical

[172] *ibid*, 158.

paradigms.

The separation of expression from mechanism was closely linked with two themes discussed throughout the chapter: the eclipsing of partimento fugue by pedagogies of bodily discipline; and the intensification of the Romantic language of individual expression, which arose concurrently with the shrinking domain of performers' creative freedoms. I argue that this latter move was part of the Conservatoire method of ideological subject formation, molding students' skillsets and identities to fit the increasingly administered demands of pedagogical and professional institutions.

Scholars have pointed to some of the vitalist ideologies motivating 19th-century performance pedagogy.[173] In its descriptions of the soul's expression, the Paris *Méthode* certainly relied upon conceptions of human and mythic vitality. Throughout the treatise, the authors admonish the student to not merely rely upon their "*sensible*" (or sensitivity), but to additionally call upon a heated, "expansive force" akin to the "sacred fire which Prometheus stole to illuminate mankind."[174] Elsewhere, the source of this fire is attributed to the soul (*âme*) of the performer—the source of a beautiful sound is "the depths of their soul." The connection between the classical, historical order and a mythic one is made in the advice that the performer should "bring to the soul of the listener the feeling that the composer had in his; bring back to life the great geniuses of past centuries, and bring to their sublime accents the enthusiasm that is suitable to this noble language which we rightly call, like poetry, the LANGUAGE OF THE GODS."[175]

Rubinoff details the close association of the National Guard and the

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[173] Stefan Knapik, *Early Twentieth-Century Discourses of Violin Playing* (Dissertation: Oxford, Magdalen College, 2011).
[174] Campagnoli, *Nouvelle Méthode*, 158.
[175] *ibid*, 163.

Conservatoire, which created a hierarchical pedagogical system and administration: "students were supervised by teachers, who in turn reported to five inspecteurs-compositeurs (inspector-composers) charged with planning the process of musical skill acquisition and standardizing repertoire."[176] As she further points out, the inspector-composers were chosen from the composition faculty, and were thus compensated better than other teachers "who were themselves ranked, like the army, into first, second, and third classes."[177] Beyond ranking musicians within an administrative hierarchy, this system indicated the ways in which pedagogies of composition and performance were set up to establish and maintain historical canons. Rubinoff further lists the ways in which the new institution reinforced "nascent aesthetic ideals" including "reverence for the composer, obedience to the conductor, and compliance with the score. Such developments, while resulting in greater orchestral discipline, effectively curtailed the instruction of improvisation and other performative freedoms."[178]

Analysis 6: Scales in the *Méthode*

With the specialization of compositional and performance pedagogy at the Conservatoire, violinists began to focus primarily on questions of sound production, score study, fluid technique, and the cultivation of an individual style and expression. This division of labor was written into the exercises appearing in the *Méthode*. With the exception of a few exercises attributed to Baillot, only the melody lines of the exercises were composed by the Paris violinists (likely by Baillot, whose name appears first on the

[176] Rubinoff, "Towards a Revolutionary Model," 486.
[177] *ibid.*
[178] *ibid*, 477.

book, and whose later expansion of the method book in his *L'Art* attests to his particular investment in pedagogical publication). The bass lines were written by the admired composer Luigi Cherubini, who in 1822 became the director of the Conservatoire.

A comparison of elementary exercises in the *Méthode* and Geminiani's *Art of the Violin* demonstrates some of the differences between these violinists' musical thinking. The following C Major scale in the fourth hand position appears in the *Méthode*:

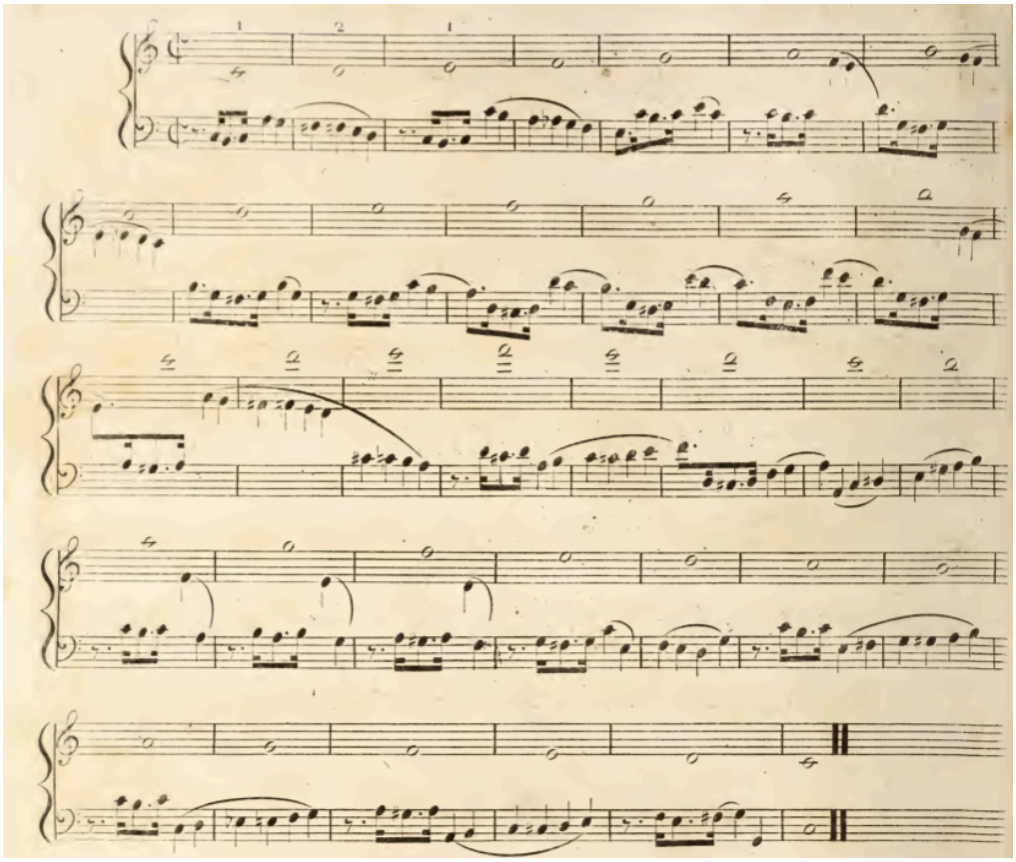

Figure 3.26: "Cinquiéme Position" from the *Méthode* (1793)

These whole notes train the pupil's attention to evenness in bowing and sound production. Underneath them, Cherubini has composed a bass sequence that shifts up in thirds, occasionally pivoting with chromatic scales. The sequences reverse as the scale in

the treble part descends.

These bass lines create galant phrase structures underneath the whole note scale. It begins with a 2+2+3-measure phrase, before cadencing as the scale reaches an octave above the original C. The next phrase is more elaborate—it begins again with two 2-bar statements, but the chromatic scales appear twice, turning the last bit into a 5-bar phrase.

Because the scale is designed around the violinist playing in fourth position, the scale cannot continue far into the third octave to reach a high C, and instead terminates on the note E. Notably, Cherubini uses this violinistic limitation to create harmonic variation. Rather than again settling into a cadence on the second C, the chromatic bass line is repeated, deferring the C-Major cadence to the high E. As the violin descends, Cherubini modulates to A minor, tonicizing the D when it arrives in the violin part. From here, the exercises passes through its relative B minor, which in turn leads chromatically to G7 and a resolution in C Major.

The student violinist playing with this accompaniment, while likely focusing on their hand position, intonation, and sound production, would have implicitly picked up on the regular phrase structures and harmonic rhythms of the accompaniment. Both a feeling for harmony and galant phrasing would have thus been built into the scale. This is a very different introduction to this fundamental building block of music than was given in the partimento books. The "rule of the octave" (described by Galeazzi in Chapter Two) trained musicians to understand voice-leading and harmonic figures emphasizing patterns of tension and resolution progressing through the scale degrees. In the *Méthode*, the violinist was trained to pick up on these patterns and phrase expressively around them, but not to compose and improvise with them.

Geminiani's Example 8 (from *Art of the Violin*) demonstrates a contrasting though related set of practices. Geminiani composed both melody and bass, and as such includes more rhythmic variety in each part. The bass line is also figured, meaning that the student would here be immediately confronted with several interlocking musical features: rhythmic variety, counterpoint, and harmonic realization. The French pupil may have trained a more stable and reliable bow arm, but Geminiani's would be introduced to a varied musical skillset from the start.

In the context of Geminiani's treatise, the G Major scale of number 1a is relatively simple. However, even in the second measure, the violinist already registers affecting suspensions against their sustained note:

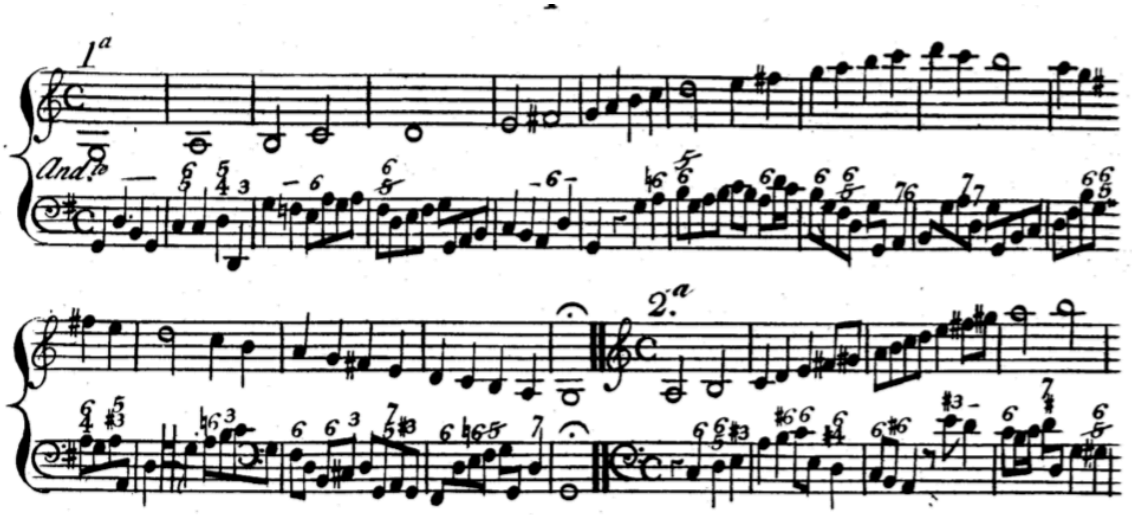

Figure 3.27: Example 8, 1a from Geminiani's *Art of the Violin* (1751)

The figures above the C and D of the accompaniment build a tension towards the 4-3 suspension and resolution on the last quarter note of the measure. A sensitive student would have felt this against their sustained whole note and built tension with the continuo through their bow pressure.

The presence of moving eighth notes in bars three and four against the whole and half notes in the melody would also have given the violinist an understanding of the importance of the violin's timbre and sustain, in contrast to the harpsichord. The quarter notes in measure six signal a lively release from the sustained notes, corresponding with the stability of the arrival on the dominant G. The excitement of this gesture continues through the next measure: as the violin and continuo part rise together, the bass line adds rhythmic variations and divisions. The 7/6 figure in the last quarter of measure eight creates an especially dissonant moment, marking the resolution on the high D of the scale.

The phrasing of this musical scale correspond more strictly to the rule of the octave—the moments of stability at scale degrees 1, 5, and 8. This, together with the rhythmic variety in both parts, creates more irregular phrase structures than those seen in the Paris example. The emphasis is less on creating coherent phrases, and more on a representative example of interesting two part writing. The bass line's affecting rhythmic coordination with the melody, the feeling for imitative contours in both lines, and the frequent patterns of tension and resolution given by the figured bass, all point to an 18th-century pedagogical philosophy that saw various interwoven skills as crucial to building modular bits of music.

By contrast, the Paris example represents, in miniature, a more coherent, and less modular musical form. The phrases are much more symmetrical and regular, the violinist's rhythm is always consistent, and only two musical ideas motivate the accompanying sequences. The scale follows a binary form—inverted as the scale descends. The modulations at the inversion create a very short harmonic narrative for the

descending scale.

Whereas Geminiani provides an excerpt of musical fluency motivated by several schematic bits and pieces, the Paris example provides a diminutive example of a larger narrative form. Even on this most elementary level, the students of these respective pedagogical traditions receive a much different notion of musicality, and their prescribed roles within it. Geminiani's pupil is immediately exposed to several techniques for music-making in both the violin and continuo parts. By contrast, the Paris pupil is given isolated tasks within a formal structure made by a composer, inculcating rules of good phrasing and sound production.

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Other exercises throughout the Paris *Méthode* similarly demonstrate the isolation of 18th-century patterns and schemata seen earlier in this chapter, in movements collected by Cartier and Campagnoli. In the section on the first left hand position, sequences of different intervals are presented. One such exercise provides a pattern of rising fourths and falling thirds. At the mid-point of the exercise, the sequence is inverted. This is the same pattern that outlines the subject of Bach's C Major fugue (as well as the corresponding examples in Pachelbel and the Langloz manuscript). The comparison is strengthened by the fact that beneath this familiar sequence is a descending chromatic scale—the same as seen in Bach's counter-subject.

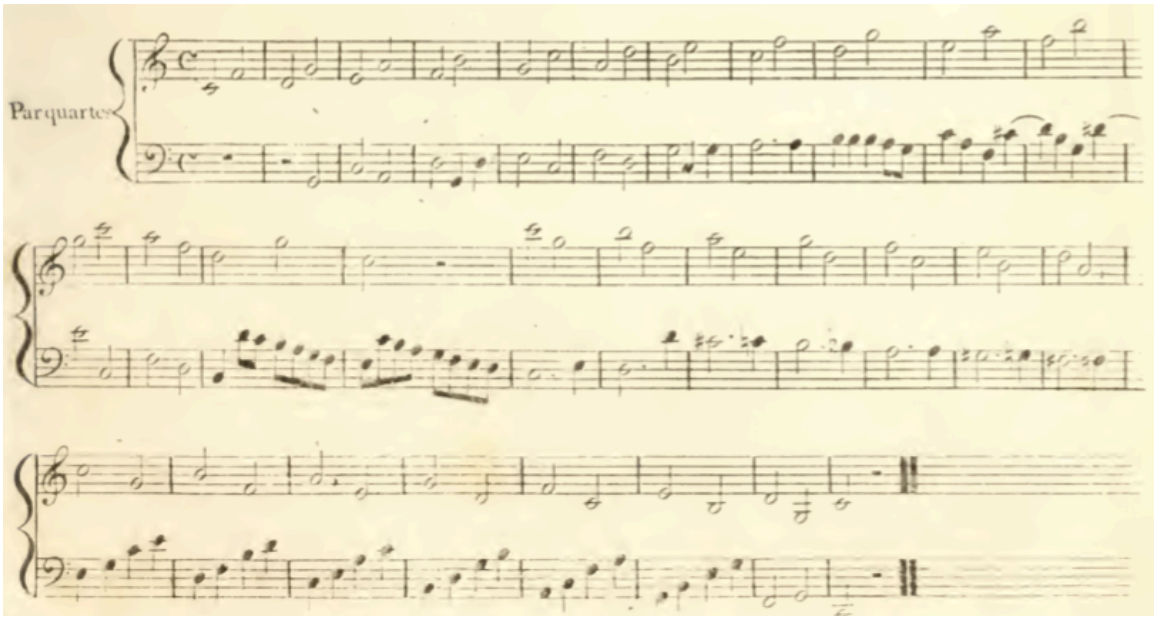

Figure 3.28: "Parquarte" from the *Méthode* (1793)

Another example, composed entirely by Pierre Baillot, features ascending arpeggios in the violin part. This is in contrary motion against a descending chromatic bass line. Bach's C Major fugue featured a descending chromatic counter-subject—a formulaic contrapuntal line. However, rather than moving contrapuntally against it, Baillot reduces this to simple arpeggios, ascending in contrary motion against the bass line. This is reminiscent of Campagnoli's subject and counter-subject, which also features contrary motion in lieu of a more sophisticated counterpoint.

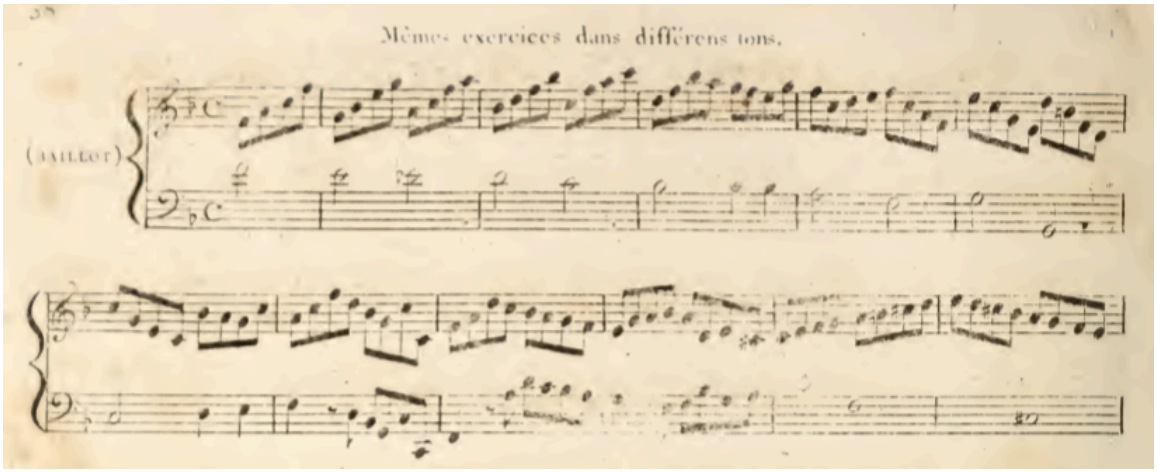

Figure 3.29: "exercices dans différens tons" from the *Méthode* (1793)

A third exercise composed for the third position of the left hand features a series of moving pedal points:

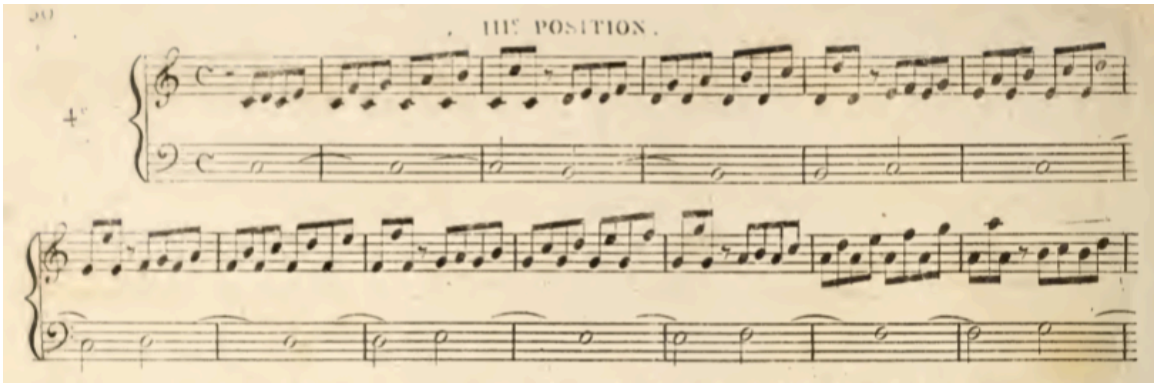

Figure 3.30: "III Position" from the *Méthode* (1793)

These kinds of pedal points will be very familiar from the fugal movements of the Cartier manuscript. Bach, Corelli, Geminiani, and Tartini all used pedal points and string-crossings to create multiple voice parts in their counterpoint. These musical devices here become formulaic, technical exercises disciplining the students' bodies.

3.4 Pierre Baillot's L'art du Violon

Here I turn to Pierre Baillot's *L'art du Violon* (1835) in order to further demonstrate the shift to a classical order of performance pedagogy. As I mentioned in the chapter introduction, this treatise represents an expansion of the original violin *Méthode* published by the original Paris Conservatoire violin teachers, Baillot, Pierre Rode, and Rudolf Kreutzer. Many of the broader historical shifts represented by *L'art* – the curtailing of extemporization in favor of a work- and composer-centered tradition, the republican ideologies imbued in its pedagogical philosophy, and the intensified disciplining of the body – have already been observed by musicologists, as defining features of performance pedagogy under the new Conservatoire model.[179] My observations in this section further illuminate these movements in detail through a close analysis of Baillot's *L'art*.

Beyond fleshing out these changes, I argue that this new pedagogical order and its separation of musical expression and mechanism represented a significant epistemic shift in how performers and pedagogues understood, valued, and justified their practices. The intensified disciplining of the body certainly continued the practice of "regulat[ing] musicians' bodies for the purposes of a secular republican state,"[180] but it also represented the formulation of technique, isolated from any questions of musical construction or expression. This emergent concept of technique treated the body as a structural entity, which could accurately reproduce scores, and any variety of virtuosic figurations contained therein. One can see the way in which Campagnoli's encyclopedic approach to cataloguing bodily techniques contributed to this structural understanding of

[179] *ibid.*
[180] *ibid*, 488.

a comprehensive, all-purpose bodily technique. And in many ways, Baillot's treatise represents the culmination of Mozart's attempts to standardize the reading and execution of musical works.

The transition from the cataloguing of techniques to the understanding of technique as a singular, structuring entity, reflects a broader epistemic shift. 18th-century treatises by violinists including Tartini, Geminiani, and Galeazzi, collected a network of overlapping techniques, which could range from ornamentation & extemporization, to counterpoint, to instrumental skills, to speculative theories of harmony and dissonance. These rhizomatic networks of skills were understood to overlap and inform each other in composition, improvisation, and performance, and in the development of both theoretical and practical knowledge. By contrast, the *Conservatoire* method represented a much more hierarchical, specialized, and partitioned understanding of performance pedagogy as concerned with the acquisition of a general technique, and its separate application in the performance of a set canon of musical works. This movement from techniques to a singular technique also represents the movement, sketched in Chapter Two, from a practice based on the schematic stitching together of techniques/templates, and towards a practice based in formal structures and determinations (both of the performing body and the musical composition). It also limited the scope of the performer's musical engagement, creating a kind of pre-musical rubric of scales and exercises, which deferred the act of music-making to the interpretation of musical scores.

I further argue that this narrowed vision of performance pedagogy, and the role of the performer as primarily an executor and interpreter of a musical canon, went hand in hand with the intensification of a quasi-Hegelian, idealist conception of individual spirit

and style. This individualism was afforded precisely because of the supposed meritocratic basis for the standardized *Conservatoire* system: each individual who navigated this pedagogical apparatus might find his individual style and substance through the adoption and assimilation of its rigid precepts, and through the imitation of a predetermined canon of composers and performers.

Mechanism, Expression, and Order in *L'art du Violon*

Starting with the division between mechanism and expression helps to illustrate some of the interrelated theses which I introduced above. Early in his treatise, Baillot lays out the terms of this dualistic pedagogy, by way of reference to the original Conservatoire *Méthode*:

> From its inception, the Conservatoire method was divided into two parts: the first treated *technique*, the second treated *style* and *expression* [...] Let the student become imbued with the necessity of obtaining the best technique before going beyond that, let him learn to work slowly—the only way to advance more quickly—and above all let him not apply himself to matters of expression before he has acquired the means to do this without hindrance."[181]

The isolation of technical from musical considerations is a deliberate strategy meant to facilitate learning: a strategy seen in the earlier comparison of scales in Geminiani's treatise and the Paris *Méthode*. In Geminiani's violin treatise, the codification and construction of affect is taught alongside mechanical questions of instrument-playing. By contrast, Baillot's *L'art* is designed with the idea that first principles of technique might be given – a kind of armature that is only later to be imbued with music-making potential. This is reflected in Baillot's self-described teaching method:

[181] Pierre Baillot, Pierre Rode and Rudolf Kreutzer, *Méthode de Violon* (Paris: Faubourg, 1793), 16.

1. A *definition* is given, and an *example* is given to support it. The first thing a student must do is to understand thoroughly, so that he can succeed more quickly in performing properly.
2. Purely *technical exercises* are given, and *basic* technical difficulties are summarized as a *formula*. This formula presents the best possibilities for surmounting the difficulties.
3. Finally, an *application of all the principles* is made to pieces that are to be chosen from chapter 28, 'Catalogue of the Composers Whose Works Are Used in the Violin Classes at the Conservatoire National in Paris,' which is found at the end of the volume."[182]

This method contains a few notable departures from the treatises previously encountered. First of all, the process of learning is broken down into steps, beginning with abstract principles. The idea that first principles can exist in isolation from their practical contexts appears in a strong form not encountered even in Mozart's *Versuch*, which provides written-out examples to supplement all discussions of violinistic techniques. The idea of a "purely technical exercise" is quite foreign in the context of 18th-century treatises, which do not make any reference to "formulas" abstracted from even schematic and partial constructions of music.

This method also contrasts to the method Galeazzi lays out in his *Elementi*, which draws from what he calls "the mathematical method":

> I have attempted to comply with it [the mathematical method] as much as the material has permitted. For the most part, where necessary, some definitions are laid down, followed in many places by advisable axioms, although it is not identified by such a term: the Rules can be considered as theorems which are then proven by obvious and tangible reasons which don't give much room for argument. Afterwards, the necessary consequences or corollaries are drawn."[183]

While many of Galeazzi's instructions are prescriptive, they are still drawn from the Enlightenment spirit of proof through reason and experimentation. By contrast, Baillot's

[182] *ibid*, 15.
[183] Galeazzi and Frascarelli, *Elementi*, 84-5.

formulae are posited as immutable principles without need for justification. Their primary motive is the establishment and consolidation of order.

While Tartini's aesthetics placed a great deal of weight on the idea of "natural" expression as something innate and given, he parsed manifestations of nature and the natural through considerations of specific ornaments and his observation of folk traditions. By contrast, Baillot measures supposedly natural, universal principles of musical intuition against the student's ability to interpret and realize the intentions of canonical composers:

> If he is born with a talent for music, the teacher will notice it quickly in his manner of interpreting the composer's intentions, and will advance the pupil's studies accordingly. But the teacher must above all make sure that the student is accustomed to reproducing with the most precise accuracy what the composer has written. We know that expression as notated is insufficient, but we are perhaps not well enough aware that notated expression is as essential as artistic expression, for notated expression is to music what drawing is to painting, which is almost without merit unless the outlines are well traced.[184]

This paragraph readily posits the musical score, and the intentions of the composer, as the primary metric of an individual's innate musicality. Baillot's gesture, positing technique as the prerequisite for musical expression, is here mirrored by his description of the notated score as the sketch that is colored in by performance.

I argue that this represents the beginning of a structuralist understanding of music, which worked conceptually from and towards set forms: a musical work/score, or a well-trained bodily technique. Both a work and technique are conceived as transcendent entities, distinct from the particular techniques that constitute them; somewhat akin to structuralist understandings of language, which distinguish between *parole* (individual

[184] *ibid*, 15-16.

speech acts) and *langue* (the sum language of these particular speech acts). This transcendental image of technique as a bodily structure, or the work as a sketch to be reproduced and colored in, in fact represented a significant transition from the pedagogies encountered earlier in this dissertation. Again drawing upon the category distinctions made in Chapter Two, one might think of this as a movement away from the schematic piecing together of particular templates for musical composition, improvisation, and performance, and towards the construction, reproduction, and reification of ideal forms and structures. These forms came to measure the individual – they were an essential component of the *Conservatoire* as a subject-making ideological apparatus.

This idealist construction of forms is seen in some of Baillot's images of the violinist. Leopold Mozart, in his treatise, includes an artful image of the violinist's violin and bow-hold. Baillot's contains much more exacting images, from multiple angles, which illustrate the proper positions for holding the instrument, both standing and sitting. The model violinist can describe right angles (the violin horizontal against the upright torso), with the legs mirroring the necessary asymmetry of the violin and bow hands in classical *contrapposto*.

Figure 3.31: Fig. II from the *Versuch* (1756)

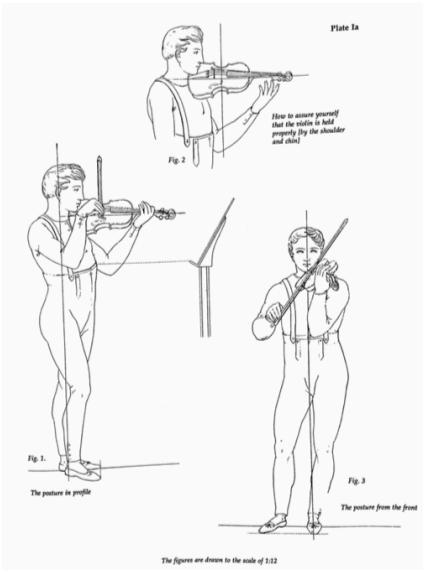

Figure 3.32: Plate 1a from the *L'art* (1835)

Baillot's idealized images of the violinist, with lines demarcating right angles and perfect symmetries reflects his idea that there are principles or formulas for technique, even before its application in musical contexts. These diagrams show that these first principles default to mathematical notions of symmetry, and classical notions of beauty (hence the

contrapposto and sculpted features of the violinist).

Incredibly precise details for "how to stand," "how to hold the violin," etc., are provided to the hundredth of an inch. Baillot includes an example, taken from Geminiani, of the left-hand position to regulate the "usual position"[185] of the elbow. Baillot's specifications for bodily positions builds upon the logic of the *Méthode* and the Conservatoire's militaristic discipline: that a standardization of technical and material conditions of violin-playing allows the individual's soul to stand in full relief.

Another cause and consequence of this shift towards a hierarchical and structural order was the deliberate curtailing of extemporization. Whereas ornamentation, figured bass, variation-playing and improvisation were important component of earlier treatises, the Conservatoire methods (including Baillot's) either omitted some of these topics, or approached them as formulae, rather than as skills that might be integrated into a broader knowledge-base combining composition and improvisation with performance. Kailan Rubinoff provides a possible explanation for this shift away from improvisation:

> The Conservatoire's eliding of performative freedoms must have been intentional: musicians untrained in extemporization would tend to be more obedient and disciplined ensemble players when faced with authoritative conductors or concertmasters. Indeed, orchestral unity—along with the suppression of preluding and other extemporizing—was increasingly a priority for critics by the late eighteenth century.[186]

Rubinoff's observation links the suppression of extemporization to the social dynamic of the orchestra, and the need to achieve unity and order in such a large group of people. Scholars have noted the numerous parallels between the orchestra and the military, and

[185] Pierre Baillot, *The Art of the Violin*, 20.
[186] Rubinoff, "Towards a Revolutionary Model," 506.

between the soloist/conductor and the military general, in post-Revolution France.[187] This again represents a noticeable shift from treatises on ornamentation and accompaniment by Geminiani. For Geminiani (and others), ornamenting/extemporizing with taste meant being familiar with the social/musical expectations of one's musical partners and audience. As such, 18th-century improvisation was not in itself an abstract expression of freedom, untethered from the establishment of a social and aesthetic order, but rather the negotiation of a performer's individuality within the hierarchical and elite space of noble courts and aristocratic patronage.

The shift towards the kinds of order seen in the Paris Conservatoire marked the massive social shifts following the French Revolution, and towards the establishment of another imperial, militaristic, and yet deeply idealistic re-ordering of society. This was reflected in the nascent prominence of scores and orchestras, as well as the structuring entities of musical canons, works, and treatises, and the bodies/bodily techniques that reproduced them. These structures had implications not only for musical practice and epistemologies, but for music itself. In Baillot's treatise, he describes these musical shifts in terms of a "tendency toward the dramatic style," which "made it necessary to increase the number of notational signs and to notate each inflection in order to come closer to the will of the composer."[188] He acknowledges both the advantages of this for the prevention of "many false readings," while also noting that this over-determination "can end up extinguishing the genius of performance."[189]

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[187] Maiko Kawabata, "Virtuoso Codes of Violin Performance: Power, Military Heroism, and Gender (1789-1830)," *Nineteenth Century Music* 28, 2, (2004), 89-107.
[188] Pierre Baillot, *The Art of the Violin*, 287.
[189] *ibid*.

Improvisation and Character in *L'art*

Baillot readily admits the loss of an improvisatory tradition amongst violinist in his time: "The *improvised prelude* permits the virtuoso to let his inspiration run entirely free...to the best of our knowledge, we can mention only Rodolphe Kreutzer who used it with any success; yet he never improvised in public, although he was certainly capable of doing so."[190] Only Kreutzer, in his estimation, was capable of improvisation, and even he did not extemporize in public. Furthermore, improvisation is relegated to the mystical domain of "inspiration run entirely free," rather than acknowledged as a learned and commonly understood practice.

In lieu of instructions on how to improvise, Baillot includes several examples of ornamentations given by older generations of violinist-composers including Corelli, Tartini, Viotti, and Mozart. He additionally includes a taxonomy of ten different types of cadenzas and dozens of examples of these types, all heavily notated with specifications for articulation, bowings, and meter. These cadenzas vary in complexity and difficulty, but they all draw from the kinds of figuration provided in the scales and arpeggios appearing earlier in the treatise. The sheer number of cadenzas and the detail with which their purpose is described, including the somewhat ironic title "Entirely Improvisatory Cadenza" (which is in fact entirely written out), demonstrate an attempt to fix and anthologize examples of improvisation, rather than an attempt to teach it from small parts.

Against the structural sketch of a musical work, Baillot uses the term, "accent," to describe what the performer colors in. This "accent" comes both from rational reflection

[190] *ibid*, 329.

and inspiration:

> Reflection teaches us to regulate the use of each thing. Inspiration is its exact opposite, since it is a movement improvised by the soul. But carefully considered work prepares all the paths to an appropriate *accent*, and, moreover, unconsciously lends to it the authority of knowledge. It is then that divine inspiration directs itself in an appropriate manner to the point it should reach.[191]

Baillot here describes improvisation in terms of a divine movement of the soul, which is regulated by reason and reflection. While earlier treatises similarly speak of genius, Baillot's association of improvisation with some kind of spiritual spontaneity stands in contrast to the earlier practice of improvisation as an essential practice for constructing and rendering musical pieces.

Baillot seeks to codify the student's discernment of the musical "accent" through his table of the "principal accents that comprise musical character." This table, in the model of Baillot's three-part course of study, is followed by numerous musical examples that demonstrate these principal accents. This table certainly resembles Mozart's list of "Musical Technical Terms."[192] Yet, Mozart's primary aim was to translate the Italian character markings of composers into considerations of affect, tempo, articulation, etc. Baillot's table, on the other hand, superimposes a vast array of visceral characters and emotions onto anthologized musical excerpts.

Baillot's "accents" are subcategories of four main "characters." The first character, "simple/naïve," includes accents given names including "pastoral," "rural," "rustic," "merry," or "tender and affectionate." These accents are demonstrated by excerpted violin lines taken from symphonies by Beethoven, concerti by Viotti, and

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[191] *ibid*, 354.
[192] Mozart, *Versuch*, 50-52.

chamber music by Boccherini, Onslow, and Haydn, among others. The association of such specific accents to themes of anthologized pieces represents a further development and determination of musical materials, when compared to Geminiani's list of ornaments and their associated affects (seen again in Chapter One).

Beyond identifying the "accents" of these anthologized examples, Baillot discusses the performer's "nuances," which constitute "different degrees of softness or loudness through which can pass one or more sounds in a note, a melody, a passage, or an entire piece."[193] "In nuances," he writes, "pay attention to the spirit, not only to what is written."[194] The character and accent of a notated score can be determined and written out, and is often even explicit in the title of a work (for example the "pastoral" accent of Beethoven's "Pastoral" Symphony). By contrast, nuances remain beyond the verbal/musical representations of a score—what Baillot calls the "spirit," in excess of the "written." At the same time as resisting the representation of notation, the performer's nuances exercise their own power of capture and representation: "[...] if the ears of the listener are also trained, the nuance captures his soul much better; in return for his restraint, the performer then has that much more power to move the spirit."[195] As such, the performer's nuances divine not only the spirit of the composer and the work, but also capture and move the soul of the listener.

This discussion of character, accent, and nuance, demonstrates the way in which an individual performer's expression was engineered through the increasing mechanization of bodily technique, and the overdetermination of the notated score. That

[193] Baillot, *The Art of the Violin*, 254.
[194] *ibid*, 256.
[195] *ibid.*

is, by coloring the musical work with shades of accent and nuance, the performer might arrive at an individual interpretation. Students were further instructed to study historical music, and to imitate historical figures, in order to find their own individuality. Their own individual spirit and subjecthood was forged within these various pedagogical apparatuses: ideal images of bodies, tables outlining musical character, anthologies of musical works, canons of archetypical composers and performers, scale systems, études, and the like.

3.5 Conclusion

My analyses of movements from the Cartier anthology, seen earlier in this chapter, aimed to demonstrate some of the schematic practices underlying the composition and performance of 18th-century violin sonatas. I juxtaposed movements by Corelli, Tartini, Geminiani, and Bach, with Campagnoli's Opus 5 fugue, which signaled a shift from integrated knowledge of the *partimento* fugue and conventions of violin-playing, to a greater attention to the violinist's virtuosic, bodily figurations as generative templates for composition. Campagnoli's treatise and fugue also reflected the diminishing role of *partimento* pedagogy, in favor of a narrower pedagogy of the body.

By turning to documents of the Paris Conservatoire—the violin *Méthode* and Baillot's expanded *L'art*—I further examined the way in which performance pedagogy shifted towards something more partitioned, specialized, and hierarchical, than it had previously been. This pedagogical and social order, formed in the wake of the French Revolution, was concerned with administering a unified and merit-based music education. This resulted in the consolidation of very specific ideals for bodily technique,

and limited canonical histories of composers and performers.

Part of this shift towards a composer- and score-based pedagogy meant that counterpoint was no longer taught as part of a living musical language. This is illustrated in Baillot's description of Italian and German fugal styles:

> *Unity* and *variety* form the basis of interest and support that interest. The first fixes the listener's attention on the subject. By its consistency and continuity, it strikes and captivates the soul, without allowing time for reflection either to diminish the interest accompanying it or to cool the sentiment it holds. The second, by suitable diversions and pleasant details, prevents monotony and sets the principal subject in relief, whether by presenting it in other guises or by helping its progress with episodes that are related to it. So it is in the fugue, with its *episodes* and *artistic devices*, as well as in most of the compositions of the German school, in which the *generating idea* undergoes all possible development. So it is also in another genre, the compositions of the Italian school, where *variety* consists mainly of a *succession of pleasant ideas* which, with regard to sentiment, belong more to the general feeling of the piece than to the material components of the subject. So it is also in another genre, the compositions of the Italian school, where *variety* consists mainly of a *succession of pleasant ideas* which, with regard to sentiment, belong more to the general feeling of the piece than to the material components of the subject. So it is also in the *virtuosic passages* that serve to contrast with melodies, and that become to the sonata or concerto what episodes are to the fugue. And finally, so it is also in *variations* themselves, which are a sort of virtuosic passage different from others only in that variations recall a theme or represent it with different rhythm, harmony, or character.[196]

Baillot demonstrates an understanding of the importance of fugal textures and composition for fugues and sonatas, even if his understanding of the characteristic differences between the German school (based on the "generating idea") and the Italian (based on a "succession of pleasant ideas") misses many of the material and structural similarities between them. Beyond this, his distinction between German and Italian composition reinforced the idea of Teutonic musical rigor, against a distracted, Italianate beauty (a distinction that becomes more visible in Chapters Four and Five).

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[196] *ibid*, 191.

Most notably, Baillot's description of fugal writing is far removed from on-the-ground questions of subject construction, motivic economy, or schematic patterns of contrapuntal writing. His description is rather firstly based on an abstract aesthetic ideal of "unity" and "variety," placing considerations of the listener's soul and sentiment before historical analysis. This obfuscation of material histories and techniques of counterpoint, in favor of an idealistic language of feeling, is representative of the Conservatoire's pedagogical shift. This was the inevitable historical amnesia that arose in the attempt to consolidate administrative order. The Paris Conservatoire's canon was selectively drawn along lines of gender, class, and nation, even as it attempted to democratize access to musical education. Its promotion of ideal bodies and sentiments, through an intensive curriculum of scales, études, and musical works, further limited the creative scope of performers, advancing the circumscriptions of elite tastes seen in 18th-century pedagogies through the Conservatoire's ideological apparatuses. These apparatuses—anthologies, treatises, scale systems, études, and institutional structures—came to effectively direct and measure the bodies and souls of its subjects, in ways that continue to be enormously consequential in the present day.

CHAPTER 4

Musical Interpretation and the Metaphysics of Tone

Joseph Joachim was a violinist, conductor, composer, and pedagogue, born in 1831 in Köpcsény, Hungary (present-day Kittsee, Austria). As a child prodigy, Joachim was mentored by Felix Mendelssohn at the Leipzig Conservatory, and became known for his performances of Beethoven's violin concerto and late quartets, as well as J.S. Bach's solo violin pieces. Shortly after Mendelssohn's death in 1847, Joachim moved to Weimar where he served as a concertmaster for Franz Liszt, but dissociated himself from the circle of composers that Franz Brendel called the "New German School" (i.e. Liszt, Richard Wagner, and Hector Berlioz). Following this Joachim strengthened his connections with the Schumanns, and became an advocate of Johannes Brahms' music. In 1865, the violinist moved to Berlin where he founded and directed the department for performance at the Royal Conservatory.[197]

It was through Joachim's choices of repertoire, his performances (considered by many musicians and critics in his time to be authoritative), and his teaching that he helped consolidate a canon of German composers whose emphasis on classical forms and techniques drew a through line from Bach to Beethoven and Brahms. This advocacy of a particular tradition also helped establish an archetype for the performer as an interpreter of musical works, whose proximity to great geniuses of past and present imbued his performances with the air of authority. The recasting of the performer as primarily an interpreter, especially in the context of 19th-century Germany, contained strong religious

[197] Andreas Moser, *Joseph Joachim: A Biography (1831-1899)*, trans. Lila Durham (P. Welby, 1901).

and moralistic overtones—as seen in the descriptions of Joachim as high "priest of the most beautiful and elevated"[198] musical works. This interpretive paradigm shifted away from schematic practices of composition and improvisation of the 18th-century, instead focusing on a performer's handling of large movements; in their treatise, Moser and Joachim describe the "honorable role"[199] of a performer interpreting a grand work of art.

In this chapter I argue that this paradigm of performance as interpretation centered questions of tone production, timbre, bowing, vibrato, and fingering, and furthermore imbued these elements of corporeal practice with metaphysical, historical, and structural significance. I argue that music's ideality was in this way inscribed in performers' bodies, and vice versa, that material techniques of performance helped to construct notions of the transcendental, spiritual nature of compositional forms, works, and musical thought. One of the primary supporting examples for this argument is Joachim's role in the revival of Bach's solo violin music. Bach's intricate polyphonic works and grand musical structures became symbols of an abstract, musical transcendentalism, which as Celia Applegate writes, "encompassed all that their [German] philosophers and writers had been saying of the relationship between individuality, spirituality, nationality, and the aesthetic life."[200] Bach's polyphony was imbued with a sense of spiritual transcendence, which Joachim and his supporters similarly attributed to a cohering sense of German *Geist*.

My analysis of Joachim's recordings and writings attend to the ways in which

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[198] Karen Leistra-Jones quoting Eduard Hanslick and Amalie Joachim; Karen Leistra-Jones, "Joachim, Brahms, and the Politics of *Werktreue* Performance," *Journal of the American Musicological Society* 66, no. 2, (2013), 399, 419.
[199] Joseph Joachim and Andreas Moser, *Violinschule Teil III* (Berlin: N. Simrock, 1905), 5.
[200] Celia Applegate, *Bach in Berlin: Nation and Culture in Mendelssohn's Revival of the "St. Matthew Passion"* (Ithaca: Cornell University Press, 2014), 3.

templates for bodily practice from the Italian and French *bravura* traditions were superimposed upon Bach's music (composed before this *bravura* tradition took shape). I argue that the addition of these seemingly superhuman, virtuosic bodily techniques to Bach's music contributed to the sense of its idealization—it was precisely their emphasis on the material challenges of Bach's music that allowed violinists to claim its ultimately transcendental meaning. As such, violinists' bodies were both dramatized and diminished by the unfolding of Bach's polyphonic structures into sounding performance. Likewise forgotten and occluded in these interpretations of Bach's violin works were the kinds of schematic, contrapuntal composition and improvisation practiced by 18th-century violinist-composers (including those featured in Cartier's anthology). Given Bach's singular ability to weave together large scale forms through techniques for polyphonic violin-playing, the hypostatization of his violin works had genuine musical rationales. Still, Bach's ascension was facilitated by the romantic amnesia of devotees like Joachim, who set his music apart from French and Italian works and techniques in order to bring him in line with their own musical-aesthetic histories.

Throughout 19th-century accounts of Bach interpretations, the importance of musical *Ton* (tone) and *Klangfarbe* (timbre) emerge as material markers of German idealism. A close attention to these aspects of musical sound marked the imprint of German idealism on the material bodies and techniques of 19th-century performers, and vice versa, the role that bodily practice played in shaping romantic aesthetics. For German musicians and intelligentsia from Hegel to Helmholtz, understandings of *Ton* wove together a nexus of material and metaphysical, artistic and scientific strands of exploration. For performers like Joachim, the production of *Ton* was a practice that was

rationally and systematically investigated. At the same time, *Ton*, for the violinist, became the locus of subjective expression, manifesting the artist's inner, spiritual life.

The complex status of *Ton* as metaphysical and material substance reflected many practical and discursive collisions prompted by the romantic idealism of 19th-century performance practice. In the last section of this chapter, I examine another complex encounter, between Joachim and the German natural scientist and philosopher, Hermann von Helmholtz. In Helmholtz's monograph, *Die Lehre von den Tonempfindung* (*On the Sensations of Tone*), the violin took a central position in observing and measuring tone: both its physical/mathematical objectivity and the physiological nature of its perception. Helmholtz used the violin as an instrument to measure acoustic phenomena including beating, harmonics, and consonance/dissonance. I examine the ways in which Helmholtz moved between an empirical, materialist account of tone, and considerations of tone as a marker of cultural knowledge, experience, and meaning. My reading of *Die Lehre* ultimately find points of resonance between Helmholtz's study and some of the violinists' literature reviewed in this dissertation, showing that—since at least the mid-18th century—violinists had similarly been reflecting on the material properties of musical tones and their cultural/expressive meanings. Joachim's own sensorial attunement to tone was at odds with his inability to describe it in theoretical terms (in contrast to earlier violinists like Tartini and Galeazzi). Still, his ability to intuit (if not understand) Helmholtz's theories of tone made vivid the role that performing bodies played in the transmission of musical knowledge.

4.1 Materialist and Idealist Tensions in the Performance of Bach's Violin Solos

At the age of twelve, Joachim was one of the first students to enter the Leipzig Conservatory (est. 1843), where Mendelssohn took a special interest in cultivating his musical talents and sensibilities. Mendelssohn's instructions regarding Joachim's education are reproduced in the latter's biography. This biography was written by Joachim's student, Andreas Moser, with whom Joachim also co-authored his *Violinschule*. Moser likely wrote these texts under Joachim's supervision, and in all likelihood reflecting Joachim's own vision of his life and work. Moser quotes Mendelssohn's pedagogical prescription for Joachim upon his arrival in Leipzig:

> The Cherub no longer needs the training of a Conservatoire for his instrument, indeed, no teacher of violin-playing is necessary for him at all: let him work by himself, and play occasionally to David for the benefit of his criticism and advice. I myself will often and regularly play with him and be his adviser in artistic matters; the boy has also worked out his tests in harmony without hesitation or fault, and therefore I strongly advise him to continue this study under Hauptmann, in order that he may learn all that is required of a true artist. I consider it, however, of the greatest importance that the boy should receive a thoroughly sound general education, and I myself will undertake to find him a competent teacher.[201]

Joachim and Moser's *Violinschule* reflects similar sentiments, regarding the need for a broad musical education benefitting from the study of literature and music theory. And just as Mendelssohn revived Bach's "St. Matthew Passion" in 1829, so too did Joachim mount a performance with the Berlin *Hochschule* orchestra in 1894, further demonstrating the ways in which Joachim adopted principles of Mendelssohn's directorship.[202]

Beyond broadening Joachim's horizons as a musician and artist, Mendelssohn

[201] Moser, *Joseph Joachim*, 39-40.
[202] *ibid*, 230.

also instructed him in the importance of music history, the study of which was filtered through the principle of *Werktreue* fidelity:

> He accustomed Joachim to think first of the music itself, then of his instrument, and never to sacrifice the intention of the composer in order to simplify the execution of any passage. Especially did he exhort his protégé to honour the old masters. 'It is inartistic, nay barbaric, to alter anything they have ever written, even by a single note.'[203]

Joachim's calculated efforts to narrate his own biography, curate a lineage of canonical works and composers, and establish himself as a quasi-religious mediator of historical genius, attests to the extent to which he embraced Mendelssohn's early instructions.

A major part of Joachim's carrying on of Mendelssohn's legacy of *Werktreue* interpretation was through his performances of Bach's solo violin music, which up until that time had not been thought of as suitable concert pieces. While Joachim's biographers and students routinely described to Joachim's performances of Bach's solos as revelatory, critical reception suggests that even Joachim's famed performances did not always impress. Later in his life, Joachim regularly toured England, where he was generally met with great enthusiasm. The Irish dramatist and novelist, Bernard Shaw, however, wrote harshly of Joachim's 1890 performance:

> [Joachim] played Bach's *Sonata in C* at the Bach Choir Concert at St James's Hall on Tuesday. The second movement of that work is a fugue some three or four hundred bars long. Of course you cannot really play a fugue in three continuous parts on the violin; but by dint of double stopping and dodging from one part to another, you can evoke a hideous ghost of a fugue that will pass current if guaranteed by Bach and Joachim. That was what happened on Tuesday. Joachim scraped away frantically, making a sound after which an attempt to grate a nutmeg effectively on a boot sole would have been as the strain of an Eolian (*sic*) harp. The notes which were musical enough to have any discernable pitch at all were mostly out of tune. It was horrible – damnable! Had he been an unknown player, introducing an unknown composer, he would not have escaped

[203] *ibid*, 46.

with his life.[204]

Considering Joachim's break from the New German School, it is unsurprising that Shaw jumped on the opportunity to eviscerate Joachim's performance of Bach, given that Shaw was a committed Wagnerian. Polemics aside, however Shaw draws attention to the technical challenges of performing such a virtuosic, large-scale work on the violin. What Shaw considered a grating attempt at an impossible piece, another camp of musicians and audiences considered the rendering of Bach's genius, which challenged and even transcended what was materially possible. That is, the critic's description of a "hideous ghost of a fugue" touched upon a different kind of supernatural event: the channeling and hypostatization of Bach, as conducted by Joachim.

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The revival of Bach's violin music affords a look at how19th-century musicians recast 18th-century music in idealist terms. In particular, violinists like Joseph Joachim, Andreas Moser, and subsequent generations of Joachim's pupils, spoke of sound and music in dualistic terms of the subjective and objective, spiritual and material. In the Leipzig conservatory, for example, *Technik* and *Vortrag* (interpretation) were taught as separate skills by different teachers.[205] These idealist distinctions suited a performance practice in which musical objects—such as scores, works, symphony orchestras, historical canons, and virtuosic bodies—were becoming more codified and determined. Treatises such as Baillot's meanwhile increasingly emphasized the imperative to define

[204] Quoted in: Dorottya Fabian, "Towards a Performance History of Bach's Sonatas and Partitas for Solo Violin: Preliminary Investigations," from *Essays in Honor of László Somfai: Studies in the Sources and the Interpretation of Music,* ed. L. Vikárius and V. Lampert (Lanham, MD: Scarecrow Press), 87-108.
[205] Joshua Navon, "Pedagogies of Performance: The Leipzig Conservatory and the Production of *Werktreue*," *The Journal of Musicology* Vol. 37, Issue 1 (2020), 71.

one's own subjective individualism within these seemingly objective historical traditions.

Consistent references to Joachim as the first major interpreter of Bach in prefaces to early editions of the solo violin works underscore his role in bringing the composer to the attention of audiences and subsequent generations of violinists. Jenö Hubay, a Hungarian violinist who studied with Joachim in Berlin, writes:

> Then came Joachim and his rendering was a revelation. How he played, and interpreted these sonatas is so well-known, that it is not necessary to mention it. When I completed my studies at the Berliner Hochschule under Joachim's direction, the study of these sonatas formed one of the most important parts of his teaching. Joachim used the very excellent edition by Ferdinand David, based on Bach's manuscript, to be found in the Royal Library in Berlin. All the same Joachim changed a great deal in this edition, with regard to the manner of playing, bowing, fingering and marks of interpretation, and I kept to all the alterations made by him. I very often had the opportunity of hearing Joachim play these works at concerts as well as during his classes, and so I was able to observe the fineness of his interpretation down to the smallest detail.[206]

Hubay posits Joachim as the first to offer a revelatory interpretation of the solo violin works. Joachim's *Vortrag* stems from a proximal source in the Bach revival—that is, Mendelssohn's associate and frequent collaborator, Ferdinand David. Exceptional knowledge of Bach's music was implied to follow in Hubay's interpretations, who learned from Joachim—a demonstration of the way in which violinists' used their proximity to *Werktreue* interpretation to consolidate cultural authority.

The violinist and famous 20th-century pedagogue, Carl Flesch, presents a more tempered and inter-textual reading of the Chaconne movement from Bach's second *Partia*, comparing editions by "Hellmesberger, David, Joachim-Moser, Auer, Hubay,

[206] J.S. Bach, *Three Sonatas and three Partitas for Solo Violin, BWV 1001-1006,* ed. Jenö Hubay (Vienna: Universal Edition, 1921), 1.

Busch, Rosé and Capet."[207] In contrast to Hubay's very guarded transmission history of Bach's spirit, Flesch proposes a more liberal understanding of this music as universally manifesting the individual interpreter: "Only a fool would maintain that the Chaconne, this cosmos in itself, could be visioned through a single prism. Its charm lies in the very fact that its picture, in the case of each person, is reflected in his own individuality."[208]

The description of the Chaconne as a "cosmos" harkens back to cosmic properties of counterpoint as they were understood in Bach's time. The German organist and music theorist, Andreas Werckmeister, for example, made explicit connections between "cosmological order and invertible counterpoint, stating that a piece in invertible counterpoint can reach its perfection in its 'inversion' (*replica*) and is therefore 'A mirror of nature and God's order.'"[209] Some two-hundred years later, Flesch continued to grapple with the spiritual associations of counterpoint and the practical, material means of its rendering. However, rather than discussing practical problems of composing or improvising with schematic counterpoints, Flesch writes of translating the immateriality of Bach's polyphony through the expressive language of violin tone and timbre:

> The lovely D major now comes with the effect of a deliverance, like the sun which, dividing the lowering clouds, smiles gently down upon the earth. The type of expression corresponding to this mood is based upon a *pp* freed from all earthly heaviness, whose production makes peculiar technical demands: an entire suspension of bow pressure, and a tone so far as possible produced on the fingerboard, without vibrato and equalized, as though coming from a distance and dematerialized. The auditor must believe that he hears a dream-spun, immaterial echo.[210]

Flesch is here discussing the transition to the middle section of the Bach Chaconne,

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[207] Flesch, *The Art of Violin Playing Volume II*, trans. Frederick H. Martens (New York: C. Fischer, 1939), 153.
[208] *ibid*, 149.
[209] Yearsley, David, *Bach and the Meanings of Counterpoint*, 20.
[210] Flesch and Martens, *The Art of Violin Playing Volume II*, 157.

which marks the only modulation in the expansive variation movement, from D minor to Major. The emergence of the major chord signals a deliverance "from all earthly heaviness," conveyed by a light, ethereal bow stroke. It is through technical, material contrivances that the performer makes the auditor "believe that he hears a dream-spun, immaterial echo."

Carl Flesch's instructions for the Major section of Bach's Chaconne mark an important moment, both in the piece and in Flesch's time. The Major section of the Bach Chaconne follows the climactic, arpeggiated culmination of the first section's variations. The violinist marks this transition into the suspended, immaterial fabric of the Major section through a material alteration of instrumental timbre: a lightened bow stroke placed close to the violin's fingerboard.

If the obsession with Bach, and particularly with Bach's Chaconne demonstrates proclivities towards these expert employments of large-scale form and polyphonic textures, then the emphasis on tone as one of the violinist's expressive tools hints at the ways in which *Ton* and *Klangfarbe* became increasingly important categories for subjective expression and interpretation in the 19th century. Performance pedagogy shifted emphasis away from understandings of taste, ornamentation, and improvisatory embellishment, and towards questions of tone production, vibrato, and phrasing. This was seen already in Chapter Three, as the Paris Conservatoire methods emphasized regulatory canons, divisions of labor, and bodily techniques. 19th-century pedagogical rubrics in Leipzig and Berlin both restricted and idealized the role of the performer as an interpreter, whose cultivated *Ton* and interpretive choices around *Klangfarbe* would render the forms and harmonic structures of large-scale musical works, like the Bach

Chaconne.

The transition to the Major section of the Chaconne is perhaps the most dramatic example of a material contrivance, such as the weight of the bow, engineering a moment of transcendent, experiential and structural significance. Musicologist Emily Dolan has pointed to the way in which specific instrumental and orchestral timbres conjured images of the transcendental through material means.[211] Dolan's attention to timbre is mainly attuned to the various timbres of orchestral instruments and sections. As she argues, "that ideality is marked by its own particular timbre and that the transcendental is simply another orchestral effect."[212] Here, she is responding to ideologies of absolute, instrumental music in 19th and 20th century music criticism and musicology. By pointing to the ways in which the supposed immateriality of instrumental music was in fact conjured by signifying, material timbres, Dolan levels an important critique of enduring understandings of absolute music. While I am similarly invested in pointing to material and corporeal constructions of musical idealism, my examination of tone and timbre points to the way in which music's ideality was inscribed not only in instruments and their orchestral employment, but in performers' bodies and interpretive decisions.

The dialectic between ideal and material considerations of Bach's music are further dramatized in Leopold Auer's *Violin Master Works and Their Interpretation* (1925). Leopold Auer was a student of Joachim's and an influential pedagogue in his own right. In Chapter Three, I referred to a passage from Auer's book in order to foreshadow Bach's return in the 19th century. I here quote the passage in full:

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[211] Emily Dolan, *The Orchestral Revolution: Haydn and the Technologies of Timbre* (Cambridge: Cambridge University Press, 2013), 264.
[212] *ibid*.

> Before discussing the [Bach] "Ciaconna" and its interpretation in detail, we should mention that the Bach Sonatas, unlike those of Corelli and Tartini, were not born directly 'out of the violin' itself. They were not, in first instance, a direct 'violin' product, but a product of pure inspiration, of the highest idealistic invention, and since they occasionally well-nigh ignore the limitations of what is violinistically possible, they offer the player some of the greatest problems to be found in the whole range of violin technique. It has been said and truly that these Sonatas, 'notably in the movements in polyphonic style, represent the victory of the spirit over material limitations,' and this applies especially to the 'Ciaconna.'[213]

Auer follows Joachim's narrative, suggesting that the music of Corelli and Tartini came "out of the violin," whereas Bach's was "of the highest idealistic invention." Bach's polyphonic writing for the solo violin certainly expanded elements of Corelli's and additionally infused it with elements of the German and French keyboard/choral traditions. However, in Auer and Joachim's accounts we see Bach's polyphony abstracted from the material, bodily practices of his contemporaries and forebears, and elevated to "represent the victory of the spirit over material limitations."

4.2 Joachim's Bach Recordings

The gulf between violinists' descriptions of Bach's ideality, and the material considerations of performance, is particularly noticeable in early recordings of Joachim playing movements from Bach's solo sonatas and partitas. In 1903, the septuagenarian Joachim recorded a number of pieces including the *Adagio* from Bach's G minor Sonata, and the *Tempo di Borea* from the B minor Partita. Both recordings evince an interplay between Joachim's attention to Bach's counterpoint, and his adoption of virtuosic violinistic principles (cultivated especially in Italian and French traditions), such as a *bel canto* singing style, three- and four-part chords in the *bravura* style, and staccato bowing

[213] Auer, *Violin Master Works and Their Interpretation*, 21.

techniques. These connections to older French and Italian styles are made explicit in Moser's biography of Joachim.[214] Throughout these recordings, Joachim also demonstrates his cultivated attention to tone and timbre, oftentimes shifting up on a string to keep one musical idea within the same tonal world. His often extreme differentiation between vertical and horizontal sonorities, and the abrupt shifts in pacing and tempi that they create, reflect this pull between harmonic and melodic playing. Taken together, these characteristics indicate an interpretive practice with a clear understanding of the contrapuntal and harmonic structures of Bach's writing, but mediated through the instrumental, corporeal, and virtuosic language of violin-playing as it was developed in the years between 1720 and 1903.

Joachim's recording of the G minor *Adagio* presents a unique adaptation of some of the violin techniques, which we saw formalized in Chapter Three, for the performance of Bach's music. For example, Campagnoli's description of the "prepared chord" across three and four strings neatly characterizes much of Joachim's chord-playing in this recording: the opening G minor chord begins with the bow resting on the lower two strings, before dramatically accelerating onto the upper strings. This *bravura* style of chord-playing sounds strange in the context of much of Bach's other works, rendered on the harpsichord, organ, lute, or string sections, given that it draws from a tradition of virtuosity that cultivated the seemingly supernatural bodies of violinists. However, it was the material effect of violin techniques like the "prepared chord" making the violin

[214] "The violin-teaching of Joachim rests upon that of three great masters of the classical French School—Viotti, Rode, Kreutzer—who modeled themselves on the pattern of the 'bel canto' of the old Italians." Earlier in the biography, Moser describes Joachim's first teacher using the Paris *Méthode* to teach the young boy; his early deficiencies in his bowing arm were also supposedly corrected by a study of Rode's caprices; Andreas Moser, *Joseph Joachim*, 6, 21, 240.

resonate in a powerful and impressive way, coupled with the idealization of Bach's music, which contributed to the image of these Sonatas as transcending material limitations.

These three- and four-part chords are similarly sounded elsewhere in the movement. Almost without exception, Joachim plays consecutive chords on down bows, rendering the voices with one impulse of the right arm. This often has the effect—as in the transitions between measures 4-5, and 15-16—of slightly abridging the note values of the full chords.

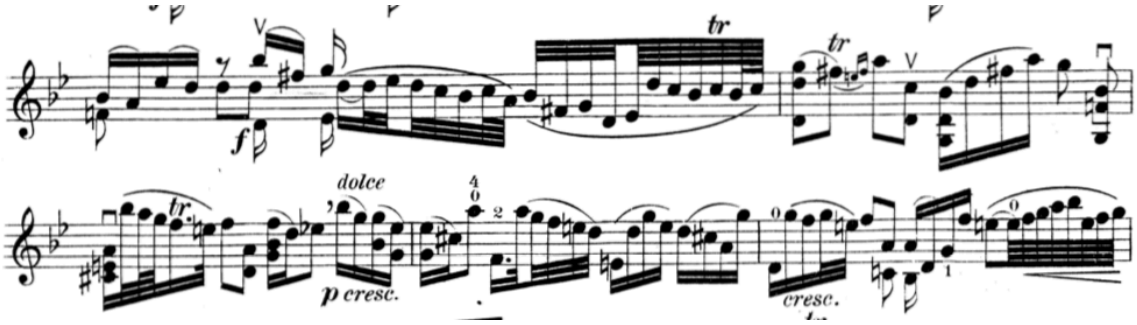

Figure 4.1: Measures 3-7 of J.S. Bach's *Adagio* BWV 1001, from Hubay's edition

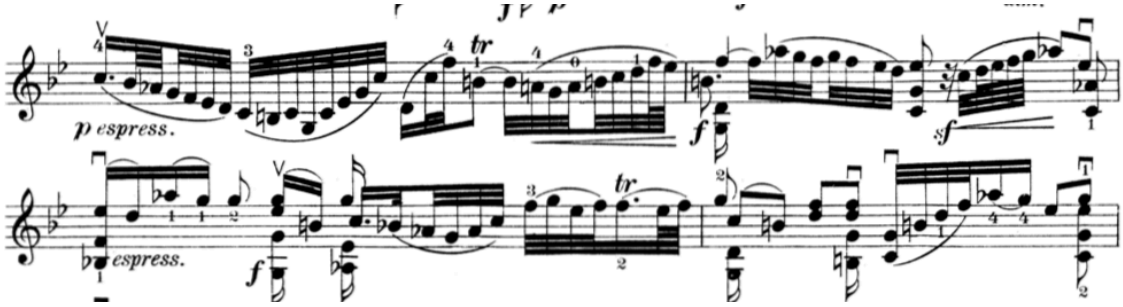

Figure 4.2: Measures 14-17 of J.S. Bach's *Adagio* BWV 1001, from Hubay's edition

Elsewhere, similarly, rapidly-sounded chords sustain one or two voices, as in the opening G minor chord, which gives way to the sustained high G. This creates a stark contrast

between vertical sonorities and the melodic ornamentations that they give way to. These melodic ornamentations are played with an extremely sustained *legato* in the bow arm—a kind of *bel canto* singing style, which is further developed by Joachim's tendency to keep lines on single strings by shifting up and down the fingerboard, as is especially audible in the third beat of measure 18.

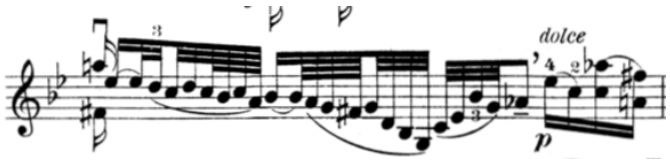

Figure 4.3: Measure 18 of J.S. Bach's *Adagio* BWV 1001, from Hubay's edition

The ornamental lines are not exclusively treated in an extended, singing way. Certain gestures, such as the quick flourishes into the fourth beat of measure 2, the fourth beat of measure 15, or the downbeat of measure 8, are sped up, signaling their function as preparatory upbeats. These ornamental lines indicate Joachim's expressive liberties with notated rhythm, which signal his proximity and familiarity with improvisatory practices of 18th-century embellishment. In other sections, rhythmic liberties superimpose other traditions on Bach's score. For example, Joachim swings certain descending two-note phrases:

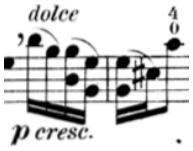

Figure 4.4: End of measure 5 of J.S. Bach's *Adagio* BWV 1001, from Hubay's edition

By turning these even notes into something between a triplet and dotted sixteenth feel,

Joachim colors these figures with a more tempered version of the dramatic *rubato* heard in his recordings of Brahms' Hungarian Dances.

Joachim's recording of the *Tempo di Borea* from the B minor Partita similarly evinces the superimposition of 19th-century templates for violin-playing on 18th-century music. In this quicker dance movement, three and four-part chords are played in a *bravura* manner, occasionally overpowering the microphone. Beyond this, Joachim adds bariolage textures over passagework, such as in measures 48-50, and single-bow staccato passages, as in measure 64.

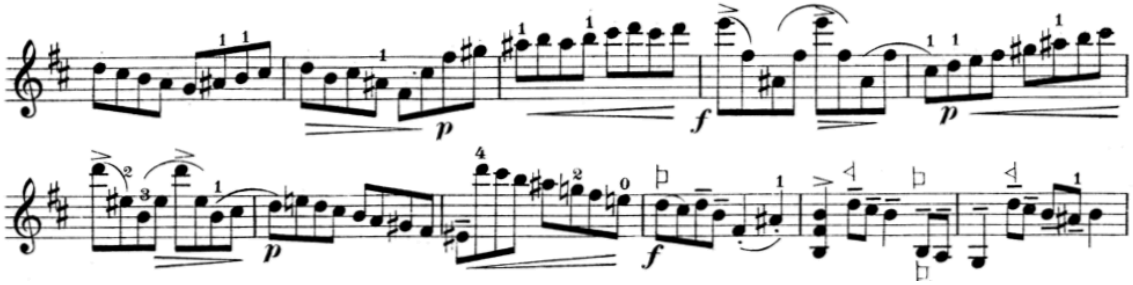

Figure 4.5: Measures 45-55 of J.S. Bach's *Adagio* BWV 1001, from Hubay's edition

Both Joachim's adoption of the *bel canto* singing style, and the French cultivation of virtuosic bowing techniques, were a conscious part of his early pedagogical program. The virtuosic bow techniques seen above, for example, feature heavily in the method books and caprices by Paris Conservatoire teachers including Baillot, Rode, and Kreutzer. One can hear the way in which these pedagogical templates formed a kind of expressive armature for Joachim's interpretations of Bach's music. To modern ears, their employment might seem jarring and anachronistic—in some ways, the superimposition of bowing patterns on the *Tempo di Borea* makes the movement sound like a difficult étude rather than a transcendental masterwork. At the same time, the corporeal struggle of rendering these pieces seemed to contribute to the image of Bach's music as

transcending the limitations of the material instrument.

Many of these virtuosic techniques were cultivated after Bach's pieces were composed, during a time in which pedagogy shifted away from his familiar methods of composition and improvisation and towards the engineering of virtuosic bodily techniques. These analyses show how Joachim's bravura style of violin-playing dramatized the gap between his own *Zeitgeist* and the transcendental image of historical Bach that was conjured and cultivated by musicians like Joachim. By superimposing a 19th-century way of thinking through the body upon Bach's abstract musical language, Joachim staged a collision of material practices, employing his virtuosic body in service of the further mystification of Bach's counterpoint.

This collision of material practices and idealist conceptions is made explicit in Joachim's biography. Moser draws an analogy between the synthesis of Italian, French, and German influences in the music of German composers (like Bach), and Joachim's own synthesis of the Italian and French violin schools. Italian and French forms are described as lifeless armatures for the German spirit to occupy and re-animate:

> But as in the musical life of Italy today Palestrina, Corelli, and Tartini are practically dead, so musical France has lost almost every trace of the greatness and importance of her ancient school of violin-playing. As centuries ago multitudes of German musicians made pilgrimages to Italy in order to learn at the very cradle of instrumental music, so today Italian and French students flock to Berlin to learn at the German capital how their forefathers practiced the art of fiddle-playing. It is, however, right to bring Joachim's name into connection with the dawn of a new era in the history of violin-playing, inasmuch as that he, in giving a new import to the traditions inherited from his predecessors, has adapted them for the pursuance of his own high ideals. He is the first who has played the violin, not for its own sake, but in the service of an ideal, and has lifted up his calling from the rank of mere mechanical skill to an intellectual level. In this way he has wrought in his own sphere what the great creative geniuses of Germany did, who borrowed beautiful musical form from Italy

and imbued it with German spirit.[215]

This tribute to Joachim positions the 19th-century German school as a nascent, dominant force in the further classicization of European music, carrying forward the faded glory of the Italians and French. Moser's description of composers who imbued Italian music with "German spirit" posits spirit as a content that can re-vivify existing musical forms. Moser suggests that Joachim—"in his own sphere" of violin-playing—performed a similar operation: learning older forms and techniques from the French and Italians, and elevating these materials to the ideal level of the German spirit. The importance Moser attributes to the German spirit is premised on the denigration of Italian and French violin-playing as merely mechanical and concerned with the violin "for its own sake." By contrast, Joachim is credited with lifting the state of violin-playing to an "intellectual level" in service of the ideal—descriptions, which clearly echo (and presage) Auer's elevation of Bach over Corelli and Tartini.

Of course, what is neglected in this account is the way in which the French school adopted the music and sensibilities of the Italians, while also transitioning away from their broader, schematic partimento education, into narrower and more specialized prescriptions for bodily technique. Joachim, like other purveyors of 19th-century German spirit, may have looked to the historical music of J.S. Bach for his roots. However, by elevating the German musical canon (and by extension himself) to these ideal and intellectual heights, he also charted a romantic amnesiac history which occluded the material contexts grounding Bach's compositional and improvisational practice.

[215] Moser, *Joseph Joachim: A Biography*, 240-241.

4.3 Musical Thinking, Bodily Thinking

Joachim's performances of Bach were a site of encounter between the bodily, material thinking of violin playing as it developed through the late 18th and 19th centuries and the abstract musical thinking that Bach emblematized. One of the most well-known takes on Bach's own term, "musical thinking" (or *musikalisch denken*), is elaborated by Christoph Wolff, who points to Bach's study of the Italian composer and violinist Antonio Vivaldi as a signal point in Bach's "musical thinking," involving considerations of the order, connection, and proportions of an abstract and "generic compositional substance."[216] For Wolff, this abstraction of compositional form and structure constitutes "one of the more decisive points of departure" for the "eventual dominance of instrumental music as the principal and most congenial vehicle for the rigorous pursuit of absolute 'musical thinking.'"[217] This description of Bach's ability to abstract musical form from questions of corporeal and sonic realization, and the subsequent shift to instrumental music as the "rigorous pursuit of absolute 'musical thinking,'" reinforces common notions of musical intellect as associated with structure and abstraction, rather than with considerations of bodies, emotions, and sensation.

While scholarly accounts of "absolute 'musical thinking'" often focus on differences between instrumental music and forms of dramatic music (vocal music, opera, tone poems, etc.), this dissertation has prepared the grounds for an understanding of "absolute music" that considers the rift opened between the "musical thinking" of composers and theorists, and the bodily thinking of instrumentalists. In many ways, Wolff's account confirms and builds upon the observations of violinists including

[216] Wolff, *Bach: Essays on his Life and Music*, 78.
[217] *ibid*, 83.

Joachim, Baillot, and Galeazzi, insofar as they describe the transition from the schematic practice of composition from small parts, to grappling with larger musical forms as an essay of ideas. On the other hand, my reading of these performers' texts complements this elaboration of "musical thinking" by attending to the performing body as itself a formal structure with its own organizing logic.

Joachim's performances and writings encapsulate this moment in which musical thinking and bodily thinking were effectively dissociated from one another. "*Vortragstudien*" (translated as "Studies in Rendering and Performance")—an essay attributed directly to Joachim—appears in the third part of the *Violinschule* by Moser and Joachim. In one passage, Joachim describes the rift between musical and bodily considerations in terms of a conflict between the performer's imperative to faithfully reproduce the *Geist* of the work, and compositions which are constructed against the material nature of the instrument and body:

> In the face of such compositions, the performer is often in conflict between what is required of him and what he can achieve. On the one hand, if he wants to call himself a real artist, he must be concerned with faithfully reproducing the intellectual content of the work entrusted to him; on the other hand, his otherwise technical dexterity is confronted with passages that resist the nature of the violin.

The intellectual content (*geistigen Gehalt*) of the musical work follows a logic that sometimes defies the materiality of the instrument performing body. In the case of Bach, this apparent defiance of the violin's material limitations prepared the grounds for a hermeneutic tradition which heard transcendental implications in this struggle between violinists' bodily language and Bach's musical & formal abstractions. More broadly, shifts in 19th-century performance pedagogy contributed to the growing division of labor between performance and composition, as well as the movement of performers' focus

away from interwoven skills of composition, improvisation, and instrumental skills, towards bodily discipline and the interpretation of historical music.

Joachim's writings and recordings paint a picture of a practice whose material and ideal particulars diverge, often along nationalistic lines. However, his idealist framework does not simply eschew materialist considerations. Rather, he takes a tempered approach to seeing the ways in which various ideas, thoughts, and states of mind are encoded within bodily practice. And beyond this, he points to the ways in which national histories, with their own attendant ideas, ideologies, and spiritual valences, accumulate within the bodies of violinists.

Joachim's remarks in his *Vortragstudien* echo many of the values instilled in him through his own education with Mendelssohn at the Leipzig conservatory, including the emphasis on analyzing form, harmonic structure, and thematic development in large-scale musical works. [218] His instructions furthermore illustrate the ways in which an aesthetic paradigm emphasizing formal analysis worked hand-in-hand with *Werktreue* principles emphasizing the important role of the educated interpreter equipped with theoretical and historical knowledge. This is reflected in his sentiment that smaller-scale pieces (as well as pieces composed by their performer) did not require these more learned forms of knowledge, and might simply rely on the intuition of the musician.[219] Whereas earlier violinists like Galeazzi and Tartini pointed to the integration of theoretical and practical

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[218] "If the creator and performer of a piece of music unite in one and the same person, then all advice aimed at its interpretation will be irrelevant insofar as it is obviously a matter of the performer's personal affairs. The matter is different when he approaches the rendering of a strange composition that does not belong to him. He then plays the role of an agent who carries out an order, the more honorable the larger the work of art that is in question."
Joachim and Moser, *Violinschule Teil III,* 5.
[219] *ibid*.

knowledge in techniques like ornamentation and embellishment, Joachim makes a clear-cut distinction between theoretical knowledge and a spiritual (*geistigen*) handle of the work, which required a decorous balancing of the performer's ego with the intentions of the composer.

Against this nascent historicism and subsequent need to balance performers' subjectivities against the deceased or living creator, the violinist's tone and timbre emerged as a marker of their irreducible subjective expression. As Michael Gallope points out, for 19th- and 20th-century German philosophers of music, *Ton* constituted "a 'nameless' dialectical linkage between the spheres of the material and incorporeal, the practical and metaphysical."[220] Joachim adopts this philosophical attention to tone in his idealist descriptions of its practical production, comparing the importance of the violinist's tone to that of the singer's:

> Just as even the most musical singer, who has a melodious voice, cannot avoid ascribing part of his effect to that gift from heaven, so a beautiful, warm tone is of the greatest importance for the violinist as well, for it is the sonorous expression of his inner feelings. But just as the most gifted singer has to train his organ continuously in order to make it compliant with his artistic intentions, so too the violinist will have to cultivate his tone not only in terms of its sensual appeal, but even more so in terms of its ability to express himself.[221]

For Joachim, tone is "the sounding expression of [the violinist's] inner feeling." Given that tone manifests inner feeling, it has to be cared for and cultivated, both in order to tune its beauty, and to direct expression.

As such, material elements of tone, for Joachim, manifested the ineffable inner-ness of the disciplined body. Though the production of tone had to do with the rationally

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[220] Michael Gallope, *Deep Refrains: Music, Philosophy, and the Ineffable* (Chicago: University of Chicago Press, 2017), 66.
[221] Joachim and Moser, *Violinschule Teil III*, 6.

cultivated aspects of bowing, vibrato, and fingering, there was also an element of these movements that defied verbal description: "The subjective, expressive tone results from a difficult-to-describe interaction between the gripping fingers of the left hand and the bow stroke."[222] As Joachim writes, the "subjective, expressive tone" results from those coordinated movements of the left and right hands, which are difficult to describe. At the same time, certain aspects of tonal manipulation can be rationally identified and developed. Vibrato—a technique that Flesch later takes up as the marker of subjectivity *par excellence*—can add warmth and life to the tone.[223] The four strings likewise provide various timbres, which Joachim compares to four different vocal registers.[224] The identification of these four strings as akin to vocal registers identifies a dynamic already at play in which Corelli, Tartini, Geminiani, and Bach, used subject entrances on different strings in order to create a polyphony of musical voices. As timbre and tone become more important considerations, their role in both expressing and interpreting the human subject and musical subjects/objects became more pronounced and explicit. What remains unclear is the connection between the engineering of multiple voices through changes in timbre, and the singular voice of the individual violinist as manifested through their tone.

One example of the ways in which timbre and tone affected Joachim's interpretation of historical music and musicians is his analysis of the following passage from the *Andante* of Tartini's G Major Sonata:

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[222] *ibid.*
[223] *ibid*, 6.
[224] *ibid*, 8.

Figure 4.6: Tartini's Andante, from Joachim and Moser *Violinschule* (1905)

Joachim describes Tartini as an extremely subjective and creative master (*so überaus subjektiv empfindende und gestaltende Meister*),[225] and on this basis, suggests that he would have played the above passage upon the A-string. While this may or may not have been true, it demonstrates the way in which Joachim reads Tartini through a 19th-century lens, super-imposing his own fastidious attention to tone and timbre as a marker of one's inner subjectivity on Tartini's music.

Tartini and other violinists certainly used different strings and their timbres to counterpoint different voices on the instrument. Joachim's own attention to timbre manifested through his engineering of different fingerings emphasizing the tone-color (*klangfarbe*) of particular strings. An illustrative example of this is in the Bach C-Major violin fugue, various violin editions of which bear Joachim's influence by putting the opening subject in a higher hand position on the G-string. The grouping of the Bach C Major fugue's subject on the G-string reflects Joachim's directive that a musical thought (*Gedanken*) should be heard, when possible, in the same timbre (*Klangfarbe*).[226] While Joachim elsewhere complains about the overzealous editions of various works, his reading of Bach and Tartini shows the way in which *Werktreue* culture in fact

[225] *ibid*, 11.
[226] "Among these manners of singing, the portamento comes first. Its tasteful employment considerably increases the violinist's expressive ability, because in most cases it corresponds to the requirement that, where concerned, notes of a single musical idea should be heard in the same timbre"; *ibid*, 8.

modernized 18th-century music, projecting a present sensibility upon a very different looking and sounding practice.

By shifting emphasis away from regulative, 18th-century notions of taste, and towards regulative understandings of musical traditions and masterworks, Joachim introduces the idea of the performer as primarily an interpreter, whose work it is to mediate between existing musical objects and their own, subjective interiority. Within this ideology of performer-as-interpreter, merely material considerations were subordinate to ideal ones. However, the material considerations of the performer also affected the impression of the ideal, and created transcendental experiences of the music. This is reflected in Joachim's minute considerations of phrasing, bowing, and fingering, which might best represent the musical ideas and thoughts of composers.

Within this framework, *Ton*, as the marker of the violinist's subjectivity, presented a complex intersection of material and metaphysical considerations. Often times it was the production of tone that came to be understood as the most ineffable aspect of the violinist's art. In the foreword to his Bach edition, the French violinist Lucien Capet repeats a refrain in Joachim's treatise, writing, "the noble task of the violinist" is "to translate, using his soul and technique as intermediaries, the sublime works of the Great Creators." Within this transmission, "it is necessary to consider the role of the right hand vis a vis the left hand, like that of the Soul vis a vis the Body."[227] Other remarks suggest that Capet's likening of the relation between Soul/Body to that of right hand/left hand was more than a metaphor. And Carl Flesch echoes Joachim/Moser's statement about the "almost 'spiritual' complex of movements" of the violinist who

[227] J. S. Bach, *Three Sonatas and three Partitas for Solo Violin, BWV 1001-1006*. ed. Lucien Capet (Paris: Senart, Roudanez et Cie., 1915).

combines "the appropriate movements which best express his feelings in a subconscious manner."[228] These statements suggest an understanding of bodily movements as constructing spiritual and metaphysical ones, reflecting Joachim's enduring influence as both a pedagogue and interpreter of Bach.

4.4 Helmholtz's History of Tones and what Holds them Together

I have argued that Joachim's brand of performance practice, which emphasized the performer's role as an interpreter, furthered the Conservatoire's departure from integrated pedagogies of performance, composition, and improvisation, while continuing to alter violinists' engagement with the materiality and meaning of sound. While Moser and Joachim's writings evidence a nuanced attention to tone and timbre, this attention was often directed towards expressions determined by musical works and pieces. More generally, *Ton* was understood to manifest a performer's individual subjectivity.

In this section, I enliven contrasting epistemologies of musical tone through the work of Hermann von Helmholtz, whose *Tonempfindung* (*On the Sensations of Tone*), first published in 1863, represented a significant advancement in the field of acoustics. In 1885, Joachim and Brahms visited Helmholtz at his home in Berlin. Joachim and Brahms came to view Helmholtz's instrumentarium; for his part, Helmholtz was keen to test principles of his acoustic research on these two famous musicians. According to both Brahms' and Helmholtz's accounts (as collected by Joachim's biographer, Andreas Moser), the meeting revealed certain barriers of communication, both in hearing and speaking. Brahms claimed he "consistently heard the opposite of what Helmholtz

[228] Flesch and Martens, *The Art of the Violin Volume II*, 78.

claimed," while Helmholtz concluded that "neither Brahms nor Joachim fundamentally understood what it was actually all about *for me*; to my scientific, acoustical questions they always gave artistic, musical answers." Nonetheless, Helmholtz was impressed by the "keen hearing" of Joachim, "who still reacts to pitch differences far beyond the point where other musicians would flounder."[229]

Helmholtz's ambivalent encounter with Brahms and Joachim reflects both a loss of historical knowledge and the possibility of its dialectical reconfiguration. Despite Joachim's practical, embodied knowledge of tone, tuning, and sound production, the language he used to describe it was wrapped up in romantic, idealist language which was incompatible with Helmholtz's empiricist approach. This miscommunication between Helmholtz and Joachim/Brahms centered around what Helmholtz noted as the difference between his "scientific, acoustical questions" and their "artistic, musical answers."

The misunderstanding marked differences between the Helmholtz's attention to decontextualized sound, and what Benjamin Steege notes as the "nascent bourgeoisie's enskilling in the arts of parsing and interpreting musical form and gesture."[230] Steege here emphasizes the enskilling of bourgeois audiences' listening, complementing the increased attention to musical form and gesture in 19th-century performance pedagogy and interpretation as evinced by Joachim's treatise. The attention to musical structure and prosody appeared not only blind to Helmholtz's mode of listening to sound in itself, but also to Helmholtz's historical attunement to earlier paradigms of musical knowing that did pay close attention to acoustic phenomena like beating, combination tones, and just

[229] Benjamin Steege, *Helmholtz and the Modern Listener* (Cambridge: Cambridge University Press, 2012), 210.
[230] *ibid*, 36.

intonation. In other words, Joachim and Helmholtz were ostensibly working with the same materials and histories, such as the violin, the bowed string, or the writings of Tartini—and yet they had arrived at largely incommensurate understandings of musical theory and practice.

Still, Helmholtz's insistence that Joachim heard and readily performed just intoned intervals suggested that Joachim's body and sensorium were in fact keenly attuned to the just intonation scale, though he was personally unable to think or speak about it in the terms employed by either Helmholtz or earlier violinists like Tartini and Galeazzi. Even as Joachim's rhetoric and teachings shaped the romantic idealist conceptions of large-scale works and curated repertories, tacit knowledge about the materiality of sound and intonation still lingered in his body—a kind of transhistorical inheritance that passed between the disciplined bodies of violinists.

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As we saw in Chapters One and Two, both Tartini and Galeazzi used the violin as an instrument to measure the sensorium; in this way, their bodies became both the instrumental objects conducting their experiments, as well as the empirical subjects confirming and deducing observations from these experiments. Prior to Helmholtz, these Enlightenment-era violinists had already objectified their bodies, ears, and sensibilities, in order to gain knowledge of perception, artifice, and the natural world.

The importance of the violin and its literature is evident throughout Helmholtz's treatise. In his seventh chapter he addresses combination tones, whose discovery he credits to two instrumentalists – Sorge, a German organist, and "the Italian violinist

Tartini (1754), from whom they are often called *Tartini's tones.*"[231] He describes combination tones as such:

> These tones are heard whenever two musical tones of different pitches are sounded together, loudly and continuously. The pitch of a combinational tone is generally different from that of either of the generating tones, or of their harmonic upper partials. [...] Combinational tones are of two kinds. The first class, discovered by Sorge and Tartini, I have termed *differential tones*, because their pitch number is the *difference* of the pitch numbers of the generating tones. The second class of *summational tones*, having their pitch number equal to the *sum* of the pitch numbers of the generating tones, were discovered by myself.

Combination tones are readily audible on instruments like the violin and harmonium, but the trained ear might hear them from "the rapidly fading notes of a pianoforte."[232] The reliance of their perception on a trained ear explains both the difficulties of proving their objective existence, as well as the fact that they were initially discovered by highly skilled and attentive instrumentalists. This is an example of Helmholtz translating the embodied, experiential knowledge of musicians into scientific and mathematical terms. While Tartini and Galeazzi also both attempted to integrate their knowledge in scientific terms, they did not succeed, as Helmholtz did, in articulating this specialized knowledge for a wider audience. Interestingly, Sorge (who Helmholtz credits along with Tartini for discovering combination tones) was the first chairman of the Mizler Society, which Leopold Mozart declined to join on account of their frivolous attention to esoteric theoretical and mathematical pursuits. While Mozart's narrow understanding of the violin discipline predominated the kinds of conservatory training dominant in the 19th century, the resurfacing of these bits of empirical observation and knowledge demonstrates

[231] Hermann Helmholtz, *On the Sensations of Tone as a Physiological Basis for the Theory of Music*, trans. Alexander J. Ellis (North Chelmsford: Courier Corporation, 1954), 152.
[232] Helmholtz, *On the Sensations of Tone,* 154.

surprising transmissions of bodily and scientific knowledge.

Helmholtz's treatise was recognized for its ability to combine scientific reason with a knowledge of musical aesthetics and history. As Steege writes, "It was not uncommon for published reactions to his work to emphasize his 'mastery' of both humanistic and natural scientific inquiry."[233] Elsewhere, Helmholtz demonstrates that he not only understood Tartini's importance in discovering difference tones, but also that he picked up on certain tenets of Tartini's aesthetics. Chapter 8, "On the Beats of Simple Tones," explains the phenomena of "beating," resulting from the interference of two held pitches. Helmholtz describes these beats as having affective power, akin to Geminiani or Tartini's ornaments encountered in chapter one of this dissertation. Helmholtz writes of the slow beats:

> When a slight difference in pitch has been thus produced, the beats are heard at first as long drawn out fluctuations alternately swelling and vanishing [...] In executing music containing long sustained chords, they may even produce a solemn effect, or else give a more lively, tremulous or agitating expression. Hence we find in modern organs and harmoniums, a stop with two pipes or tongues, adjusted to beat. This imitates the trembling of the human voice and of violins which, appropriately introduced in isolated passages, may certainly be very expressive and effective, but applied continuously, as is unfortunately too common, is a detestable malpractice.[234]

The effect of these beats conveys affects ranging from solemnity to agitation, in imitation of the trembling of voices and violins. This echoes Tartini's own comments on vibrato as itself an ornament imitating the "undulation in the air" animated by "the sound of harpsichord strings, of bells, and of open strings of certain good bowed instruments."[235] As such, Helmholtz's understanding of tuned beating becomes an imitation of an

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[233] Steege, *Helmholtz and the Modern Listener,* 8.
[234] Helmholtz, *On the Sensations of Tone,* 167-8.
[235] Tartini, *Treatise on the Ornaments*, 85.

imitation: the machine of the organ engineered to imitate the violinist's bodily technique (vibrato), which is itself an imitation of resonant strings and bells.

The phenomenon of beating formed the backbone of Helmholtz's theory of consonance and dissonance. Boiled down to a crude explanation, the absence of beating was the purest form of consonance; the presence of rapid beating to the point of disagreeability was understood as dissonance. The centrality of the violin for Helmholtz is again reinforced by the fact that Helmholtz's table ranking different intervallic consonances, from the unison to the octave, was "reckoned for the quality of tone of the violin."[236] This acknowledgment has both practical and aesthetic implications: it signals the violin's importance as a scientific instrument, as a historical site of sensorial research, and as an instrument that shaped the course of musical repertoire and aesthetics.

As seen in his *Violinschule*, Joachim's understandings of the *subjektive, ausdrucksvolle Ton* ("subjective, expressive tone") result from the difficult-to-describe movements of the left and right hands—an ineffable physical movement which Capet later reformulates as the opposition between body and soul. By contrast, Helmholtz provides a material explanation of this *Geist*-infused coordination of left and right hands, describing the act in terms of its effects upon the string. Section four of his fifth chapter, for example, provides explanations and diagrams of the catch-and-release motion of the bow and string, which results in the string's periodic saw-tooth wave forms.

Helmholtz's investigations of bowing technique are not isolated to the string's vibrations; he also demonstrates an intimate mathematical *and* bodily expertise about the different contact points between the bow and string which create a variety of timbres. He

[236] Helmholtz, *On the Sensations of Tone,* 187.

observes the fact that, if a string is bowed at the node of higher upper partials near the bridge, the saw-tooth wave form appears more simply. If the bow is brought nearer the finger board, "the 5th or 6th partial tone, which is generally distinctly audible, will be absent. The tone is thus rendered duller."[237] These explanations of timbre and tone's material mechanisms relied not only on mathematical knowledge, but also on the practically cultivated skill of bowing. That is to say, bowing the string "at 1/7th, or 6/7ths, or 5/7ths, or 4/7ths, &c., of its length from the bridge," is no easy task. In coordinating the material instrument with its skilled manipulation, Helmholtz concludes that "the art of bowing is evidently the most important condition of all. How delicately this must be cultivated to obtain certainty in producing a very perfect quality of tone and its different varieties, cannot be more clearly demonstrated than by the observation of vibrational figures."[238] While he provides materialist explanations of the basic motions and positions determining tone and timbre, he also acknowledges the fine art of drawing and shaping sound without defaulting to the kinds of idealist explanations of Joachim, Capet, and others.

Helmholtz further addresses knowledge of the interactions between the left and right hands of the violinist in Chapter eleven, "Beats due to Combinational Tones." Here, Helmholtz describes the difficulties of intentionally sustaining beating patterns on bowed instruments:

> The beats have a peculiar character in the case of bowed instruments. Regular, slow, numerable beats seldom occur. This is owing to the minute irregularities in the action of the bow on the string, already described, to which is due the well-known scraping effect so often heard. Observations on the vibrational figure shew that every little scrape of the bow causes the

[237] *ibid*, 84.
[238] *ibid*, 86.

> vibrational curve to jump and suddenly backwards or forwards, or in physical terms, causes a sudden alteration in the phase of vibration.[239]

While beats are present in almost any chord played by string instruments, creating regular, slow beats is difficult on account of even minute irregularities in bowing. As anyone familiar with playing a string instrument will know that producing a regular, long, and sustained tone is no easy feat.[240] Helmholtz continues, explaining the manner in which discrepancies in right arm bowing affect the sound, even when the left hand is positioned correctly:

> Now since it depends solely on the difference of phase whether two tones which are sounded at the same time mutually reinforce or enfeeble each other, every minutest catching or scraping of the bow will also affect the flow of the beats, and when two tones of the same pitch are played, every jump in the phase will suffice to produce a change in the loudness, just as if irregular beats were occurring at unexpected moments. Hence the best instruments and the best players are necessary to produce slow beats or a uniform flow of sustained consonant chords.[241]

By attending to beats as the determining factor of consonance/dissonance, Helmholtz paints a vivid picture of the delicate system arising between the interactions of right hand bowing and left hand string-stopping. Beyond this, connections between natural phenomena, like beats, and artificial ornaments, like vibrato, again point to the violinist as an artisan intimately acquainted both with natural materials of sound and the social

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[239] *ibid*, 208.

[240] The works of composers like LaMonte Young, Alvin Lucier, and Eliane Radigue, based on the psychoacoustic phenomena of regular, and often slow beating patterns, require virtuosic control from their performers. These include performers at UCSD including Charles Curtis and Anthony Burr, who have helped these composers create a repertoire of modernist works based around the psychoacoustic phenomena explained in Helmholtz's research. In many ways, this might be thought of as an extension of Tartini's hope that music theory and practice might be further integrated to create new modes of musical expression and knowledge. It also points to the continuing ways in which musical aesthetic paradigms and modes of thought are constructed by the skilled bodies of performers.

[241] *ibid*.

expectations (and spiritual desires) of their audiences.

The very different ways in which Helmholtz and Joachim engage the violin and its literature reflect different epistemological and historical understandings of its art. In Joachim/Moser's treatise, a violinist like Tartini is cast as a romantic forebear, whose unique subjectivity is reflected in his music, and whose music serves as an important model for the contemporary violinist. For Helmholtz, Tartini's research constitutes a significant, but flawed, description of combination tones. This difference marks not only two understandings of the violin's history, but also two divergent approaches to musical aesthetics. Joachim's reflects the romantic amnesia of his era, in which he re-interprets Tartini's music through the 19th-century lens of interpretive decisions around tone and timbre, while glossing over Tartini's compositional methods and acoustical research. Helmholtz, on the other hand, stays closer to an Enlightenment understanding of aesthetics as the study of perception and sensation, developing the kind of acoustical and physiological research embarked upon by Tartini and Galeazzi. As I describe in the next section, Helmholtz's *Tonempfindung* brought an understanding of his contemporary musical aesthetics in dialogue with his empirical research, narrating a music history in which shifts in creative methods went hand in hand with principles of harmonic theory and meaning.

4.5 Conclusion

Earlier in this chapter I mentioned the nascent importance of *Ton* not only for Joachim, but for German philosophers and music theorists, many of whom were in dialogue with the writings of Kant and Hegel. For these musicians and thinkers, *Ton*

constituted a link between the material and incorporeal, imbuing the act of sounding a violin string with metaphysical significance. Michael Gallope notes the difference between *Ton* and the mere *Klang* "which Hegel had explained was a subjectless property of colliding objects."[242] And in a similar vein (again demonstrating the porous line between philosophical and practical-musical discourses), Stefan Knapik notes Joachim/Moser's association of *Klang* with the objectively-beautiful tone (*objektiv-schöne Ton*)—a kind of engineered, mere sensuousness, which appeared lifeless next to the *subjectiv-Ton* of innate artists.[243]

In Helmholtz's treatise, the difference between *Ton* and *Klang* was something again quite different. The *einfacher Ton* (simple tone) strictly refers to "the sensation produced by a single sinusoidal vibration," whereas *Klang* was "reserved for the sense impression associated with the sum total of simple vibrations."[244] In this way, *Klang* represented the complex sound comprised by an assemblage of simple tones. In his 1875 English translation, Alexander Ellis renders *Klang* as "musical tone"; throughout this translation, tone may refer to either the mathematical unit of the sinusoid wave, or the musical unit of a sounded note. Helmholtz's exacting attention to the sounding units (i.e. tones, both simple and musical) of musical systems extends to his descriptions of European art music's historical development. The structural and semiotic significance of the musical tone changes across the three stages of music history, which consist of "homophonic music," "polyphonic music," and Helmholtz's contemporary "harmonic music."

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[242] Gallope, *Deep Refrains,* 133.
[243] Stefan Knapik, *Early Twentieth-Century Discourses of Violin Playing*, 103.
[244] Steege, *Helmholtz and the Modern Listener,* 55.

Like contemporary theorists lauding the superior, non-representational immediacy of instrumental music, Helmholtz advocates for the "greater and more absolute freedom in the use of the material for music than for any other of the arts."[245] Unlike Eduard Hanslick, however, who advocated for a strict musical formalism in which music's spiritual substance "was inseparable from the actual notes and could in no way be illuminated by linguistic concepts or scientific disciplines such as acoustics,"[246] Helmholtz was very much concerned with explicating the nature of tones, if not their psychological and spiritual meaning. Helmholtz attributed music's expressive capacities to the plenitude of tonal and rhythmic combinations available to the musician. Such a power was not simply consigned to the large-scale harmonic narratives, but could operate on the level of melody: "In this way melodic progression can become the expression of the most diverse conditions of human disposition, not precisely of human *feelings*, but at least of that *state of sensitiveness* which is produced by feelings."[247]

The idea, that melodic progression might express "the state of sensitiveness which is produced by feelings," presents a more mediated account of musical expression than the representational accounts encountered in Chapter One. Geminiani, for example, posited direct connections between specific ornaments and affects, even giving physical directions such as "drawing the Bow nearer to the Bridge, and ending it very strong [to] express Majesty, Dignity, &c."[248] By contrast, Helmholtz's account posits a more general connection between tonal and mental motions, without identifying component parts of

[245] Helmholtz, *On the Sensations of Tone,* 250.
[246] Holly Watkins, *Musical Vitalities: Ventures in a Biotic Aesthetics of Music* (Chicago: University of Chicago, 2018), 41.
[247] Helmholtz, *On the Sensations of Tone,* 250.
[248] Geminiani, *The Art of Playing on the Violin*, 8.

particular musical signs. Rather, Helmholtz suggests that tonal movement evokes a state of mind, which might be interpreted as a variety of different emotions, such that "one hearer [would] find in it the longing of love, and another the longing of enthusiastic piety."[249] In both cases, Geminiani and Helmholtz refer to the nature of tone and its physical execution in conveying affective meaning.

Helmholtz's overview of homophonic music extends from a survey of ancient Greek accounts of music through early chant repertory, with a focus on the formation of a feeling for the tonic within modes, as well as the union of poetry and melody. He quotes a passage from Aristotle, in which the ancient philosopher draws attention to the close association of tone, the physical instrument/body, and the syntactical function of conjunctions:

> '[...] All good melodies often employ the tone of the middle string, and good composers often come upon it, and if they leave it recur to it again; but this is not the case with any other tone.' Then he compares the tone of the middle string with conjunctions in language, such as 'and' [and 'then'], without which language could not exist, and proceeds to say: 'In this way the tone of the middle string is a link between tones, especially of the best tones, because its tone most frequently recurs.'[250]

Helmholtz's reading associates the act of returning to the "middle string," with the syntactical function of linking other tones and phrases, given the frequency of the tone's recurrence. This posits a direct, quasi-mimetic connection between the movement of the arm playing the string, and the conjunctive nature of a recurring tone (approaching the tonic function). This connection again echoes Geminiani's table of ornaments, which further associates detailed physical instructions for bowing and vibrato, with specific semantic meanings. In both cases, seemingly abstract theoretical concepts (such as the

[249] Helmholtz, *On the Sensations of Tone,* 252.
[250] *ibid*, 240.

tonic or the affecting ornament) are tied back to the practice of bowing strings. This is further supported by Tartini's description of the ornament of vibrato as an imitation of acoustic beating. That is, vibrato is an expressive technique that follows from a physical phenomenon, which is observed and cultivated through bodily practice.

These examples point to a genealogy of bodies shaping tones, and through their iterative practices, likewise shaping their corresponding aesthetic and theoretical frameworks. Tartini's connection between acoustic beating and vibrato, or Aristotle's middle string example, demonstrate the ways in which tones connect material phenomena, bodily practice, and cultural meanings. The changing role of vibrato—from an ornament imitating nature, to a manifestation of a violinist's inner subjectivity—, marks shifts in the ideological frameworks abstracted from these developing material practices.

Within the stage of homophonic music, Helmholtz mainly addresses questions of melodic/modal arrangement. The isolated meaning of a tone becomes slightly more complex in considerations of polyphonic music, which operates along "the repetition of the same melodic phrases in succession by different voices."[251] In this phase, units like the tone, mode, or melody are superseded by the "melodic phrase" which is imitated in different voices, making it "possible to compose musical pieces on an extensive plan, owing to their connection not to any union with another fine art—poetry, but to purely musical contrivances."[252] By contrast to the descriptions of Bach's polyphony as transcendent—seen earlier in this chapter—Helmholtz's description of polyphony hews closer to Galeazzi's, encountered in Chapter Two. According to Galeazzi's description,

[251] *ibid*, 244.
[252] *ibid*.

the melodic phrase, or "idea," is similarly what makes an "extensive plan" or form possible, insofar as it creates a thematic unity for the movement. The musical idea represents an abstraction of a body's physical relation to tones; and the development of larger-scale musical forms, which the idea facilitates, is even further removed.

Still, I pointed in Chapter Three to the ways in which, by playing a succession of "voices" across different strings, 18th-century violinists like Bach, Corelli, Tartini, and Geminiani, were able to shape fugal textures with their expert bodily knowledge. The primary idea, or motif, was generally constructed to fit the left hand of the violinist, such that it could easily be imitated and repeated on other strings/voices. As such, even as fugal writing developed a kind of "musical thinking" abstracted from the music-making bodies, these movements were grounded in a firm knowledge of the affordances of the instrument and virtuosic body.

Joachim's observation of the rift between composition and the material limitations of the instrument echo much 19th- and 20th-century rhetoric around the ideal realm of composition, versus the material realities of performance. As we saw earlier in the chapter, the 19th-century revival of Bach's violin music set the stage for a collision of divergent practices—the kind of abstract, structural "musical thinking" that Bach symbolized, against the progressive rationalization of bodily techniques, forms, and figurations seen throughout the late 18th and early 19th centuries. Bach's difficult polyphonic textures and large-scale forms, in combination with the development of virtuosic violin playing, contributed to the sense that his music somehow transcended the materiality of the instrument and body.

For Helmholtz, harmonic music represents both an abstraction from and a return

to the significance of individual tones. That is, while the individual tone or melody is sublimated by the "independent significance of harmonies,"[253] the connecting principle of this harmonic language also "had to be looked for in the sound of the tones themselves, and this was found in a stricter reference of all to one predominant tonic."[254] Here, the tonic note becomes a structural key on which larger harmonic narratives might rest.

The tremendous focus that Joachim and his pupils paid to tone and timbre demonstrates the manner in which, even with the structural, harmonic world of 19th-century aesthetics, the instrumental and bodily production of tone remained a primary expressive force. Even as pedagogy moved away from the affective considerations of ornamentation, the kinds of empirical close listening observed by Tartini and Galeazzi, or the union of compositional and instrumental principles seen in 18th-century fugal movements, 19th-century violinists still practiced an isolated attention to tone production. This practice of listening closely to tone, timbre, and intonation, as part of the physical and metaphysical complex of the violin and playing/perceiving body, links Helmholtz's work with a genealogy of violin practice and the corporeal construction of musical thought.

Helmholtz's meeting with Joachim made evident the commonalities of their disciplines, histories and materials, as well as the incompatibility of their descriptive languages. Both of them were working on shaping and observing the materiality of musical tones. Both of them were similarly committed to a neo-Kantian idealist conception of musical structure as a higher order beauty than the physical and physiological sensations of tone. Yet whereas Helmholtz provided concise descriptions of

[253] *ibid*, 246.
[254] *ibid*.

Ton through the disciplines of physics and mathematics, even Joachim's most physical descriptions of sound production always led to the irreducible, subjective spirit of the violinist, carried in their individual *Ton*. He understood the violinist's body as structured by historical templates—the *bel canto* legato of the Italian style, or the bowing patterns from French études. Yet it was the *Ton* of the violinist, which manifested the characteristics of the German spirit, the individual interpreter, and the complex of historical, metaphysical, and ineffable movements structuring a musical body.

CHAPTER 5

The Instrumental Language of Performance

This chapter details the intensified rationalization of performance practice and pedagogy through three twentieth-century thinkers: violinists Carl Flesch and Rudolf Kolisch, and philosopher, musicologist, and cultural theorist, Theodor Adorno. Carl Flesch (1873-1944) was a Hungarian violinist and renowned pedagogue who taught at conservatories including the Berlin Hochschule and the Curtis Institute in Philadelphia. Flesch, who was Jewish, fled the Nazi regime to London in the 1930s, but was arrested by the Gestapo in the Netherlands and was only released due to intervention of the conductor Wilhelm Fürtwangler.[255] The younger Austrian violinist, Kolisch (1896-1978), became known for his performances with the Kolisch quartet, who were formed during Kolisch's participation with Arnold Schoenberg's *Verein für musikalische Privataufführungen in Wien* (Society for Private Musical Performances in Vienna). Kolisch later became Schoenberg's brother-in-law, and the Kolisch quartet was known for its performances of Schoenberg's quartets, done by memory. During the Second World War, Kolisch was stranded in the United States, where he taught at the New School, before being given permanent positions first at the University of Wisconsin-Madison (as part of the Pro Arte quartet), and then at the New England Conservatory.[256] Like Kolisch (and Schoenberg), Theodor Adorno spent most of the Second World War in the United States, eventually settling in Los Angeles. After the war, Adorno and Kolisch

[255] Carl Flesch, *The memoirs of Carl Flesch* (Da Capo Press, 1979).
[256] Anne Shreffler and David Trippett, "Rudolf Kolisch in Amerika – Aufsätze und Dokumente," *Musik Theorie – Zeitschrift für Musikwissenschaft* 24, No. 3 (2009), 195-287.

joined the faculty at the Darmstadt Courses for New Music, where they co-taught a seminar on musical interpretation.[257]

Kolisch's lectures (given at the New School in 1939) lay out a radical vision of interpretation as dictated entirely by analysis of the musical work's construction. In his own words, this formalist approach eschewed "categories of feeling, taste, tradition, convention, etc., as basis for interpretation."[258] Kolisch's close alignment with Schoenberg and the Second Viennese School, and his belief in serial music as the apex of contemporary art music, tied his thought to formalist conceptions of 18th and 19th-century instrumental music. For Kolisch, the less a performer's own subjective position was brought to bear on performance, the more accurately the performance might recreate the musical work. By contrast, Flesch's pedagogy relies much less on score analysis, and takes into account the historical traditions and tastes of the violin bravura tradition totally excised from Kolisch's focus on what he calls "autonomous music."[259] At the same time, Flesch shares with Kolisch an understanding of performance as the reproduction of the work's transcendental qualities, through the imperfect mechanism of the performing body. In both accounts, the performing body is an instrument for this ideal reproduction, although Flesch's account leaves open the possibility that traces of *Geist* might be transmitted both through the score as well as through inheritances of bodily practice and discipline.

I argue that the difference between Flesch and Kolisch's accounts of performance can be pithily summed up by the question of what each violinist chose to forget: for

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[257] *ibid*.
[258] Anne Shreffler and David Trippett, "Kolisch and the New School for Social Research," *Musik Theorie – Zeitschrift für Musikwissenschaft* 24, No. 3 (2009), 206.
[259] *ibid*, 203.

Flesch, self-conscious study in the moment of performance; for Kolisch, the cultural meaning inhering in a performing body. This difficult negotiation of the self in performance reflects the ways in which the performer's body – alternately considered a subject and object – is disciplined, schematized, and sublimated through discourses of musical idealism. The performer is tasked with being both a transparent instrument and a discerning artist, both hyper-conscious of their subject positions, and able to turn off their knowledge of self and body when called upon to.

In his drafted monograph on performance, originally intended to be co-written with Kolisch,[260] Adorno explores a similar dialectic between rational study and a more intuitive mode of performance. The philosopher, however, parses this dialectic between rationalized elements of musical notation and the pre-historic, mimetic, and gestural elements of the body. These buried elements of bodily gestus reflect the degree to which the performing body remained an obscure element within Adorno's philosophy of music. Indeed, throughout his monograph, Adorno refers to the bodily, gestural component of music as a quasi-mystical, ancient recurrence, rather than as a cultural and material history with its own dialectic of rational discipline vs. intuitive experimentation. Although he sketches the importance of a performer's "instrumental language,"[261] Adorno never manages to fully articulate the terms of this corporeal-sonic syntax, and its relation to interpretive considerations of compositional structure.

These philosophies of performance represent the 20th-century dissociation of

[260] "Adorno began work on the book, which he and Rudolf Kolisch were still intending to write together as late as 1935..."; Theodor Adorno, *Towards a Theory of Musical Reproduction: Notes, a Draft and Two Schemata,* trans. Weiland Honban, ed. Henri Lonitz (New York: Wiley, 2014), xii.
[261] *ibid*, 56.

musical structures and disciplined bodies, both of which were in this time schematized in service of the fleeting, transcendental magic of musical reproduction. Within these dual manifestations of musical modernism (i.e. the abstraction of both compositional structures and performing bodies), historical forms of practice and knowledge cohered into uncompromising ideological systems which delimited performance practice on both micro- and macro-scales. With these ideological binds in place, forgetting or unlearning became a strategy to escape determining histories of interpretation, bodily discipline, and rational abstraction. In the case of Kolisch, for example, it was precisely through his dogmatic insistence on the unimportance of the performer's subjectivity that he staked out his own individual subject position as a performer. Flesch, on the other hand, devoted broad segments of his treatise to the study of violinists' hermeneutic and bodily practices, attempting to address all of the physical, psychological, and environmental hindrances that might impede the performer. For Flesch, the forgetting of one's study in the unconscious moment of performance was premised on putting aside the performers' accrued self-conscious and self-critical tendencies, which were nonetheless a part of the learning and synthesis of historical techniques of knowing, doing, and feeling.

5.1 Carl Flesch, Die Kunst des Violinspiels

Given its exhaustive treatment of both bodily technique and score interpretation, Flesch's *Die Kunst des Violinspiels* (1923, 1928) represents perhaps the closest thing to a full explication of the techniques, repertoire, and exercises undergirding modern instrumental pedagogy. The most well-known part of Flesch's treatise is his scale system (an appendix to *Teil I* of *Die Kunst*), which continues to be taught and practiced by young students

today. I was one of many violinists who grew up practicing these scales, with their endless variations on bowing, fingering, arpeggiation, and double-stopping – an entirely un-musical exercise intended to build muscle memory for the execution of any number of pieces in the 19th-century bravura tradition. In Flesch's system, scales are explicitly divorced from questions of applied technique (*Angewandte Technik*) and instead intended entirely for the preparation of the performing body's general (*Angemeine*) technique—a contrast to the role of the scale in 18th-century practice as a schematic building block for combinatorial elaboration and embellishment.

This distinction between general and applied technique partitions Book One of *Die Kunst*, and furthermore illustrates the exaggerated separation of bodily and musical thinking in 20th-century practice. In Flesch's writing and teaching, general technique designates the body as a structure whose parts and positions are schematized and formally assembled. This structure is only brought into relation with the parallel structure of the musical work through applications of this bodily schematization.

In this section, I follow Flesch's phenomenology of the subjective and objective which, combined with the violinist's attention to the conscious and unconscious aspects of musical study and reproduction, form the basis for his didactic account of performing subjects and the mechanized aspects of their bodies and minds. This account is premised on categorical differences between composers, performers, and listeners. For Flesch:

> there is the human being *productive*, who creates works; there is the human being *receptive*, who takes them into himself; and there is the human being *reproductive*, who transmits the creation of the one to the comprehension of the other. The *reproductive* artist, however, is not merely the middleman between the creative composer and the listener who enjoys. He also represents a synthesis of the natures of both, in so much as he combines the neo-creation of the note-symbols in tone, the transformation of the dead letter into living feeling, with his own acoustic

> perception. The present work concerns itself with the laws which control this participation, the art of *reproduction*.[262]

For Flesch, the performer is more than the middle term between the composer and the listener: they synthesize the subject positions of both. This subjective inhabitation requires the ability to imaginatively put oneself in the position of both drawing out the tonal expression of notation, and also of critically responding to its acoustic results. For Flesch, the continual measuring of proximity and distance to sound, as both an acoustic externality and the presentation of inner feeling, constitutes the impossible paradox for a performer mediating between subjective and objective considerations of practice. This subject-object dialectic permeates every consideration of performance, from parts and positions of the body, to modes of distributed listening and attention, to tonal production.

Given the tangled networks of objects (scores, bodies, instruments) and subjects (performers, composers, listeners) involved in performance, Flesch attempts to clarify the "foundation for the ideal of artistic reproductive activity" – namely, the "union of objectivity in study and subjectivity in reproduction."[263] Flesch here introduces a pivotal synthetic moment in his pedagogy: the objective study of the performing body and psyche, complemented by subjective feeling and intuition in the act of performance. This synthetic ideal recurs throughout *Die Kunst*, not only in the switchover between activities (i.e. study to performance), but also in engineering a simultaneous attention to subjective interiority and objective empiricism in one's body, tone production, and performance psychology. For example, towards the beginning of Book II, Flesch discusses multiple modes of critical listening: "*Self-criticism* is impaired by the blending of *subject* and

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[262] Flesch, *The Art of Violin Playing Volume I,* trans. Eric Rosenblith (New York: Carl Fischer, 2008), 1.
[263] *ibid*, 70.

object in one person, by the fact that the player becomes a hybrid, at the same time performer and observer."[264]

Self-criticism is a necessary component of the violinist's study, and it is complemented by different kinds of critical and passive listening. Flesch encourages his reader to take these multiple modalities of listening into account, listing the different kinds of audition one can expect from a teacher, a colleague, an audience member, or a professional critic.[265] By locating self-criticism within a network of auditing subject positions, Flesch diagrams various modes of attention in the engagement between musicians and publics with varying degrees of knowledge. This kind of nuanced parsing of the performer's public engagement with the music, sound, and bravura elements of the violinist contrasts with Kolisch and Adorno's more particular study of the score, and their general orientation towards guiding or critiquing audiences' listening habits.

Flesch's continues his observations of the subjective/objective components within the performer through his discussion of Joachim, who Flesch holds up as a model for balancing the objective considerations of the musical work and the subjective ones of the performer: "[...] he was [...] the most subjective of all violinists, save that he was dominated by his reverence for the artwork, whose spiritual content he was able to select as the guiding thread for the manner of his own expression. One must place one's self at the service of the artwork without becoming its slave. It is an error to think that a work 'can speak for itself.'[266] Given Joachim's outsized influence in setting the terms of performance in the *Werktreue* tradition of interpretation, it is unsurprising that a violinist

[264] Flesch, *The Art of Violin Playing Vol. II*, 4.
[265] *ibid.*
[266] *ibid*, 69.

like Flesch would have been obligated to cite the older Joachim as a model for balancing "reverence for the artwork" with his own subjective individualism. Like Joachim's, Flesch's account of performance is premised on romantic ideologies of the composer as authoritative genius, and the performer as a vessel for the reproduction of a limited historical canon. Flesch followed in the footsteps of Joachim insofar as both were Jewish and Hungarian-born, and similarly cemented their reputations as influential pedagogues. Flesch taught notable virtuosos including Henryk Szeryng, Ginette Neveu, and Ivry Gitlis. However, Joachim, in his role as director of performance at the Berlin conservatory, carefully curated a musical canon including works by Bach, Beethoven, Mendelssohn, Schumann, and Brahms, which gave his own mentors and associates pride of place within a musical tradition that measured authenticity by one's proximity to a history of great Austro-German music. Joachim's place of privilege amongst this lineage of German classicists gave him an interpretive authority that set him apart from cultural understandings of 20th-century performance as the reproduction of these 19th-century masterworks. For Flesch's generation of violinists, Joachim loomed large in any discussion of this repertoire.

Joachim likewise returns in Flesch's discussion of tonal production. Flesch distinguishes between two kinds of violinists who represent the subjective and objective poles. The first violinist possesses a "beautiful sound per se," such that a beautiful tone is "part of their technical equipment."[267] This is in contrast to the violinist with the "inspired tone," for whom the tone is "dry and cold" unless "they can saturate the tone

[267] *ibid*, 78.

with their personal feeling."[268] Working by example, Flesch designates Ysaÿe as the former and Joachim the latter. Flesch explains the various advantages and disadvantages of each:

> It is difficult to answer the question of which should be thought of more highly. Without question, things are easier for the owner of the beautiful tone per se. He barely needs to 'play himself in' before a concert. Even while just 'preluding' he can rely on his seductive tone production...This is certainly an advantage. But such violinists are easily tempted into a certain laxness and 'routine' as far as expression is concerned; for, why exert oneself, why 'feel' something, if the mere *appearance* of such inner activity is sufficient to *simulate* feeling?[269]

The authenticity of Joachim's sound lies in the fact that it requires feeling to become beautiful: it is not a beauty that can be mechanically reproduced. Furthermore, Flesch's concept of the "inspired tone" proceeds from the "feeling awakened by the composition itself."[270] That is, it remains grounded in the synthesis between the subjective personality of the performer and the objective reality of the musical work. At the same time, Flesch's question of why it is in fact necessary to feel something if one can indeed effectively simulate its appearance, momentarily opens the door to a critique of the privileged place of subjective depth in romantic German aesthetics.

Flesch continues this close attention to the subjective and objective dynamics of tone through the body of the violinist. For example, early in Book I of *Die Kunst*, he writes about the difference between "objective" and "subjective" sound depending on the proximity of one's ear to the instrument:

> d) Position of the Head. This is either:
> (1) *erect*, or (2) *inclined*, or (3) *recumbent*. Which is the most advantageous? The importance of the question lies in the fact that with

[268] *ibid*, 78.
[269] *ibid*, 78.
[270] *ibid*.

> each we receive a different acoustic impression of the tone. In the first case the tone is not directly received by the ear, but is partly reflected by the walls, in the way a listener receives it, i.e., *objectively*. The more closely our ear approaches the violin, the more powerful and *subjective* is the tonal effect produced: the vibrations are directly communicated to the auditory nerves. The further our ear is removed from the violin, the more *critical* we become with regard to tone-production, the more distinctly we hear its imperfections, its accompanying noises. When our ear approaches the tonal body we have a tendency to listen to ourselves, to *luxuriate* in mere tonal beauty, without criticism...These movements, in nearly all cases, are instinctive, unpremeditated expression of the most intimate feeling, frequently of genuine fervor. Hence one must guard against trying to subject them to regulation. One should confine one's self to seeing that they are not misused. When, for instance, a violinist *habitually* lays his head on the violin while *studying* difficult passages, and thus is prevented from criticizing *objectively* what he produces, he is guilty of a species of self-deception, which must necessarily result in an unreliable technique. The same thing happens when the player forcibly prevents every expression of impulse on the part of his *unconscious* inner self by a stiff retention of the erect head position, and the resulting uninterrupted technical control with it. Hence I advocate the retention of the erect position of the head during *study*, and a suspension of control when making *music*.[271]

Flesch's description here maps out a physical/psychical world of the violinist and violin, in which physical distance between the ear and the instrument corresponds to critical distance from one's subject-position. Both head positions, employed in excess, can become detrimental: the distanced position can dampen the violinist's inner impulses; but staying too close to the instrument risks overvaluing "mere tonal beauty." Looking beyond the didactic nature of Flesch's instructions, they also elaborate his understanding of performance as bisected by objective and subjective modes of listening, tone production, and bodily discipline. That is, this passage illustrates the ways in which bodily movements and positions correlate to the physical and metaphysical properties of tone, alternately encouraging the detached observation of sounding tones, and attending

[271] Flesch, *The Art of the Violin Vol. I*, 16.

to the instinctive and impulsive qualities of tonal emergence. This passage again rehearses the dialectic in *Die Kunst* between the rationalization of practice and the importance of spontaneous expression.

Given the broad and fleeting nature of Flesch's literary and scientific references, it is hard to credit him with a consistent aesthetic framework. Knapik points to resonances between Flesch's writing and 19th/20th-century vitalist philosophies, given the violinist's continual references to vital expressions and essences (such as the "emotional and spiritual fluidium"[272]) that insufflate musical objects – a process he describes as the "transformation of the dead letter into living feeling."[273] This spiritual or subjective essence not only revivifies the notated score, but can set the body of the performer into vibration. The clearest example of this is the violinist's left hand vibrato, which melds "musical sounds with the deep feelings which subconsciously slumber in our souls."[274] Flesch compares the left hand vibrato with the trembles of the human voice, which register emotions such as "joy, pain, hatred or love results in a mixture of instability and vibration."[275] As such, left hand vibrato departs from Tartini's description of it as the engineered imitation of the voice, and instead represents an instantiation of the ideology of voice; that is, the vibrato manifests the violinist's subjective interiority/individualism.

This connection between inner emotion and corporeal vibration represents the flipside of musicologist Roger Mathew Grant's study of "affective attunement": the late 18th-century theory that music could "vibrate the nerves of the listener and thereby arouse

[272] *ibid*, 78.
[273] Quoted in Knapik, "Master(ed) Violinist," 570.
[274] Flesch, *The Art of the Violin Vol. I*, 20.
[275] *ibid*, 20.

an affective response."[276] This theory was significant insofar as it moved beyond representational accounts, which posited connections between specific musical objects and affects. The intellectual history that Grant traces – from representational accounts to materialist ones, which contrast affect with rationalism – is echoed in the progression from Geminiani's writing to Flesch's. That is, whereas Geminiani provides an analytical account of emotion in connection with specific types of ornaments (including vibrato), Flesch sees vibrato as an admixture of rational discipline and deep, subconscious feeling. Given Flesch's insistence that one cannot teach the more innate aspects of performance, the main goal in teaching vibrato becomes "removing the mechanical causes of a faulty vibrato, and to smooth the way for the student so that he can find the type of vibrato which most corresponds to his inner being."[277] As such, Flesch presents his own complex account of affective attunement theory: a resonance between musical vibration, left hand vibrato, and the vital essence of one's "inner being."

As with the different kinds of tone embodied by Joachim and Ysaye, there are types of vibrato which are more or less authentic. For Flesch, the ideal is "a vibrato which acts on the inner emotions just as it is also created by them."[278] This vibrato, effectively and affectively attuned to the violinist's inner state, is opposed to a slow and wide vibrato, which turns the tone into a "syrupy mush," and which Flesch associates with "the increasing 'industrialization' of musical life"[279] in coffee-houses and movie-houses. Flesch's dismissal of this "industrial" employment of music prefigures Adorno's own

[276] Roger Grant, *Peculiar Attunements: How Affect Theory Turned Musical* (New York: Fordham University Press, 2020), 13.
[277] Flesch, *The Art of the Violin Vol. I*, 21
[278] *ibid*, 24.
[279] *ibid*.

relentless critiques of the culture industry and the music he associates with it. Beyond this, like Adorno and Kolisch, Flesch associates authentic music with subjective individualism, threatened by the industrialization of musical life, or what he elsewhere calls "the artistic proletarization of the great majority of professional musicians."[280] This "proletarization" of professional musicians is one among many obstacles standing in the way of the ideal musical reproduction. In the ideal performance, the performer's "powers of soul and of body will be mirrored in the work to be presented,"[281] constituting a broad affective attunement of body, soul, and musical work. Here, Flesch's insistence on the performer's subjective individualism, and his general disdain of commercial music, again prefigure these same tenets in the writings of Adorno and Kolisch. The difference is that whereas Adorno and Kolisch condemn commercial music, or the mechanistic elements in certain contemporary compositions, they are primarily focused on the subjective individualism of the composer, expressed through the musical work. Flesch, by contrast, traces the inner emanations of the individual violinist through their disciplined body.

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In addition to parsing the subjective and objective components of instrumental study, Flesch presents a detailed analysis of the conscious and unconscious aspects of the violinist's knowledge and practice. Throughout, Flesch advocates meticulous, rational study of one's body and psyche, with the condition that in performance, one learns to enter a state of "forgetfulness of the inner as well as of the external world...a species of trance."[282] The switch from conscious to unconscious modes of activity is mirrored in

[280] *ibid*, 81.
[281] *ibid*, 89.
[282] Flesch, *The Art of the Violin Vol. II*, 86.

Flesch's broader pedagogical approach: the rationalization of scales, of bodily discipline and schematization, are in service of disciplining the performer's body and mind to unconsciously transmit the spirits of not only one's own inner being, but also the spirits of historical composers, performers, and musical works.

Intonation is one area in which the violinist's unconscious reflexes can be trained via conscious, rational means. In Chapter Four, I described Joachim's engrained, intuitive understanding of Helmholtz's research on just intonation, despite the fact that Joachim's own artistic and musical descriptions of tone and intonation seemed incompatible with the scientist's technical language. Flesch, by contrast, picks up on Helmholtz's research, attempting to incorporate this technical knowledge back into the unconscious workings of the violinist's body. Flesch begins his section on intonation by describing the impossibility of playing in tune in a "physical sense,"[283] by which he means that the finger is constantly and rapidly adjusting to create the impression of pure intonation. He identifies the inability to adjust as an "aural, not a manual deficiency."[284] Given this, he describes Helmholtz's physiological theory of pitch perception as an assemblage of the instrument, body, and brain: "Once we have set the string in motion, its vibrations reach our ear-drum, thence pass to the 'counting apparatus' which calculates their oscillations, and finally come to the auditory sphere situated on the border of the cerebrum."[285]

Pushing further, Flesch provides a psychological account of how the violinist might tune into these unconscious mechanisms of pitch perception, by attaching sensations of pleasure and displeasure to minute variations in pitch:

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[283] Flesch, *The Art of the Violin Vol. I*, 20.
[284] *ibid*, 20.
[285] *ibid*.

> The consciousness judges whether the tone is pure or impure. In the latter case the pupil gifted with a keen sense of hearing experiences a most unpleasant sensation, which enforces a corrective movement of the finger. The more powerful the feeling of discomfort, the greater the need to secure the true pitch as quickly as possible. This change results in a different number of vibrations...Only intensive feelings of pleasure or displeasure release corresponding movements. Hence, everything depends on making our sense of hearing so acute that an impure note makes the most unpleasant impression on us, and in this way automatically brings with it a corrective movement.[286]

Flesch is less interested in the physiological definition of dissonance or consonance than he is in increasing his students' sensitivity to gradations of pitch, whose assessments of purity or impurity were likely based on taste and context rather than on mathematical definitions. Flesch's attention to pitch echoes Galeazzi's earlier experiments, which explored the limits of pitch perception through similar, fine-grained movements of the finger on the violin. However, Flesch's account works in reverse: attempting to incorporate scientific knowledge of pitch perception into the violinist's automatic reproduction of "true" pitch.

Delving deeper into the psychic and material hindrances to a violinist's accurate musical reproductions, Flesch adopts Freud's psychoanalytic language when describing common problems of memorization. According to his treatise, the cause of errors in one's memory are often unconscious materials that need to be consciously identified:

> For students who suffer from weaknesses of memory or fear, I follow the Freudian psychoanalytical method: After the stoppage has occurred, I at once interrupt the pupil, we verify the mistake, and immediately begin to seek its cause together. In *cantilena* it usually is due to an incorrect carrying on of the motive when a modulatory crossroad has been reached. In purely technical figures, old, half-forgotten, discarded fingerings or bowings usually succeed in confusing the motoristic picture. Both conditions were hidden in the twilight of subconsciousness [*Unterbewußteins*]. They are now haled forth into the daylight of the

[286] *ibid*, 21.

> conscious, logically analyzed and incorporated in the pupil's consciousness. From this moment on the error in question will not be repeated because we know its psychic or motoric cause.[287]

Both the accurate reproduction of intonation, and of pieces from memory, rely on one's ability to work between conscious and unconscious modes. In memorizing, this requires the conscious identification of blockages that result from unconscious detritus: fingerings or bowings, which trip up the body in the moment of its reproduction. For intonation, or learning music, it requires a flow in the opposite direction: from the conscious study of perception and notation to unconscious performance.

Flesch elaborates on this flow between consciousness and unconsciousness in a passage in Book II of *Die Kunst*, identifying the dialectic of rationalism and intuition that pervades the rest of his treatise: "the ideal interpreter should study consciously, and interpret unconsciously. This dualism takes for granted the faculty of a temporary exclusion of the power of thought, of consciousness, hence a certain ability to switch or reverse our psyche."[288] Here Flesch describes the switch from conscious study to unconscious reproduction. Flesch's reflections throughout the treatise – on head positions, vibrato, tone production – are all in service of engineering this movement between study, observation, and the momentary suspension of conscious reflection.

Flesch attends to unconscious mechanisms which linger in the body: old, disused fingerings and bowings, or learned, automatic adjustments of the body and fingers for tone production and sound intonation. Elsewhere in his writings he hints at a historical dimension to the unconscious knowledge structuring a body. In his memoirs, he writes:

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[287] Flesch, *Die Kunst des Violinspiels Vol. II,* 142.
Flesch, *The Art of the Violin Vol. II*, 171.
[288] Flesch, *Die Kunst des Violinspiels Vol. II,* 64.

"Aside from one's general technical ability, it is the fingerings and bowings which one uses that are the infallible hallmarks of one's level of 'culture'. Tell me with which fingers you play, and I will tell you whose spiritual and intellectual child you are."[289] These remarks suggest that it is not only the vital experience of the individual performer that is transmitted through their body in performance. One's "level of culture" furthermore indicates the role that learning and pedagogy play in transmitting particular modes of knowledge, passed down through the resounding bodies of violinists.

5.2 History in the Body

While Book II of *Die Kunst* primarily looks at the transmission of subjective and historical *Geist* through the disciplined body and personality of the performer, the Supplement to Book II turns to musical works, tracing the confluence of bodily practices that inhere in these scores. The excerpted works are accompanied by remarks on the historical and stylistic contexts of the composers and measure-by-measure instructions for interpreting the excerpts. Flesch's repertoire choices in the Book II supplement combine music from virtuosic French and Italian violinist-composers (Nardini, Viotti, Vieuxtemps), and classic repertoire in line with Joachim's *Werktreue* aesthetics (J.S. Bach, Mozart, Beethoven, Mendelssohn, Robert Schumann). In combining these repertoires and knowledge bases, Flesch shows that the bodily-virtuosic and musical-structural thinking respectively attributed to these traditions mutually influence each other, painting a picture of music as historically constructed between compositional and bodily practices.

[289] Flesch, *Memoirs*, 136.

In his remarks on Vieuxtemps' Concerto Op. 31, No.4, for example, Flesch remarks on the relative difficulty of tracing genealogies of performance, given the impossibility of notating this tradition: "In creative musical art it seems to be quite possible to transmit to posterity, at least summarily, the creator's intentions by means of written signs of expression. The interpretative art of an epoch or an individual, however, can only be transcribed and transmitted in a credible and comprehensible way by one who has been an ear-witness to it."[290] Here Flesch makes cut and dry distinctions between "creative" versus "interpretive" art forms, based on the permanence of notation and the evanescence of performance. However, his analysis of the Concerto uncovers traces of performance traditions within Vieuxtemps' notation. Flesch examines Vieuxtemps' influence on the Belgian virtuoso Eugene Ysaye, whose playing Flesch would have heard first hand: "the conception of the Vieuxtemps rubato is so closely interwoven with Ysaye's style that this amalgamation has become symbolic for us [...] The student, however, should not forget that the translation of the rubato by means of traces of corresponding note-values can merely pretend to approximate exactness. Only the desultory, unpremeditated, capriciously imaginative factor can infuse the breath of life into the rigid note-picture."[291] Flesch can only speculate about Vieuxtemps' playing through his score, and he sees Vieuxtemps' tradition as living on as much through his compositions, as through the playing of Ysaye. In his remarks to the student, Flesch makes explicit the limitation of a literal reading of notation in rendering the "exactness" of the rubato characteristic of the Vieuxtemps-Ysaye tradition, even as this notation leaves clues for the interpreter. Flesch's analysis, throughout *Die Kunst*, of the subjective

[290] Flesch, *The Art of Violin Playing Vol. II*, 203.
[291] *ibid.*

and objective, and of the switch from conscious study to unconscious reproduction, prepares the violin student to reproduce the "unpremeditated, capriciously imaginative factor" that cannot in itself be captured by notation.

Elsewhere, Flesch gives first hand accounts of historical traditions and tastes inhering in the musical bodies and sensibilities of older violinists. He describes hearing the eighteenth century in the playing of his old teacher, Eugene Sauzay:

> In my lesson hours with the son-in-law and pupil of Baillot, Eugene Sauzay (1810-1900), at the Paris Conservatory, in the beginning of the '90ties, I nevertheless found it possible, when disregarding the personal trend of taste of my own seventeen years, to form an objective picture for myself of the customary manner of interpreting Viotti's music at the beginning of the nineteenth century; and even, up to a certain degree, to like it. And in spite of the senile tone-production of my eighty-two year-old teacher, the traces of the eighteenth century violinistic virtues transmitted to him – grace in bowing, logic in phrasing and general seriousness of conception – were still plainly in evidence.[292]

As I mentioned in Chapter Three, Viotti taught much of the original cohort at the Paris Conservatoire, including Baillot and Cartier. Viotti was seen as a pivotal figure for bringing together Italian and French bravura traditions, and laying the foundations for string playing at the Paris Conservatoire. For Flesch, these traditions were audible in Sauzay's bowing and phrasing—corporeal elements which added up to a broader musical conception and identity, which was passed down through Baillot and Sauzay to Flesch.

Beyond remarking on the elements of Viotti's playing transmitted through performing bodies, Flesch points to the way in which Viotti's writing for violin became influential for contemporaneous composers including Beethoven. Flesch points to the passagework in Beethoven's Opus 61 violin concerto as evidence of Viotti's bravura

[292] *ibid*, 179.

influence.[293] Flesch also mentions Brahms' admiration of Viotti's A minor Concerto, which Joachim played at the Lower Rhenan Music Festival at Dusseldorf, remarking on its inventive, improvisatory fantasy. Of course, the influence went the other way as well, from the Viennese composition school (and its attendant *Werktreue* values) to virtuoso violinist-composers – Flesch remarks that the Viotti concertos were, in terms of compositional form, "based on Haydn."[294]

What Flesch is beginning to outline here is a dynamic between bodily templates for musical composition and reproduction, against the ideas and forms holding together musical works, especially within the Austro-German tradition. Whereas Flesch attempts to cast this mutual influence in terms of interpretive knowledge, musicologist Jim Samson observes a contest between virtuosity and the formalism of musical works in 19th-century aesthetics. As Samson writes:

> Those qualities [of virtuosity] – freedom and subjectivity, spontaneity and chance, charisma and presence, a capacity to overcome, to attain the unattainable – can make their own statement, and in doing so they can draw us away from the qualities of the work; indeed they may even appropriate the work, turning it to ends that promote the medium rather than the message. As noted already, it is in this sense that we may speak of a dialectic between virtuosity and the musical work.[295]

Samson is outlining a dialectic between virtuosity and the musical work in the polemics of 19th-century German criticism and aesthetics, specifically revolving around the pianist and composer Franz Liszt. After serving as Liszt's concertmaster, Joachim broke from the composer and the New German musical aesthetics that Liszt came to represent – according to Leistra-Jones, his directorship at the Berlin conservatory "generally

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[293] *ibid.*
[294] *ibid.*
[295] Jim Samson, *Virtuosity and the Musical Work: The Transcendental Studies of Liszt* (Cambridge: Cambridge University Press, 2007), 79.

suppressed Wagner, Liszt, and other 'progressives' in the institution's teaching and programming."[296] Joachim's own brand of interpretation clearly favoured the camp of Mendelssohn, Schumann, and Brahms, who Wagner repeatedly attacked in both musical and anti-Semitic terms. As Leistra-Jones points out, the split between these camps had as much to do with musical aesthetics as it did with divisions of class, politics, and race/religion.

In his treatise, Flesch makes reference to these complex and often polemical questions of class and religious identity, but only by way of their immediate relevance to practical or professional elements violin-playing. In this case, he addresses the complex polemic of musical progressivism, classicism, and virtuosity by way of his remarks on the ideal interpreter, who balances their subjective individuality with the objective constraints and demands of the musical work. In this dialectic, neither the personality of the performer, nor a cowed obedience to notation, should take preference: a dynamic of the composer and performer's subjective merging which is described in detail by musicologist Mary Hunter.[297]

I would argue that, for Flesch, this dynamic between virtuosity and the musical work is more than a contest: it represents the co-presence and mutual influence of both bodily and compositional thinking in musical writing. For example, Flesch compares similar arpeggiated figures in violin concerti by Vivaldi and Bach – figures that move across the top three strings of the violin in a repeating, rhythmic fashion. The violin's

[296] Karen Leistra-Jones, "Leipzig and Berlin" from *Brahms in Context*, ed. Natasha Loges (London: Royal College of Music, 2019), 40.
[297] Mary Hunter, "'To Play as if from the Soul of the Composer': The Idea of the Performer in Early Romantic Aesthetics," *Journal of the American Musicological Society* 58, no. 2, (2005), 357-398.

ostinato figure outlines harmonic changes through the instrument's virtuosic affordances. This similarity reflects others between Bach's violin works and the techniques seen in music composed by the Italian violinists, Corelli, Tartini, and Geminiani (as seen in Chapter Three).

As I noted in Chapter Four, musicologist Christoph Wolff argues that Bach's study of Vivaldi's concerti was an important impetus for Bach's "musical thinking" – in terms of order, connection, and proportion – suggesting that Bach borrowed from Vivaldi's attention to compositional structure, in addition to more schematic bits and pieces. This *musikalisch denken* represented the beginning stages of the 19th-century veneration of Bach and his formalist abstractions; an aesthetic that cut through Austro-German instrumental music, and the polemics between the Wagner and Brahms camps. As Leistra-Jones points out, Brahms was seen as the inheritor of Bachian rationalism and order, appealing to a "middle-class *Bildungselite*" that "strongly identified with the aesthetic and expressive qualities of Brahms's music, music that needed to be studied and heard repeatedly in order to be understood, and whose contrapuntal and formal rigour seemed to affirm their values of reason and self-discipline."[298] For this audience of educated Liberals, Brahms' musical values served as a necessary foil to Wagner's populist ones, which appealed to audiences through "immediate emotional and sensual responses."[299] Flesch's *Die Kunst* combines the *Werktreue* sentiments of Joachim and this German school of performance with a studied veneration of virtuosic traditions of bodily performance. While this synthesis of interpretation and virtuosity was very different from the nexus of cultural dynamics underscoring the Brahms/Wagner divide, it nonetheless

[298] Leistra-Jones, "Leipzig and Berlin," 40.
[299] *ibid.*

involved a similar dialectic of rational mediation and emotional immediacy. Flesch's own erudite insistence on balancing individualism and subjective co-presence in the interpretation of musical works indicates his own liberal orientation towards hermeneutic practice (at least within the tradition of European art music).

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Of the eleven musical examples that appear in Flesch's supplement, ten of them are taken from the 18th and 19th centuries. The exception is the third movement of pianist and composer Arthur Schnabel's "Five Pieces" for solo violin, composed in 1918. Following this movement, the most contemporary piece in Flesch's Supplement (again published in 1928) is a movement from Brahms' Opus 78 Sonata, premiered in 1879. Given the plethora of composers writing music for violin in the early twentieth century, Schnabel might seem an odd choice to represent this musical moment. The reason for the inclusion was likely that Flesch was a close friend of Schnabel's, having played with him in a piano trio. Flesch further notes the logistical challenges of including contemporary music: "It is true that (with the exception of the Schnabel sonata movement) I have been obliged to confine myself to works which are already in the public domain."[300]

Given Flesch's wide-ranging references to contemporary musicians and thinkers, the absence of any discussion of the music of Arnold Schoenberg underscores the outsider status of the composer amongst circles of classical performers operating in major conservatories. The only mention of Schoenberg is in a footnote towards the beginning of Book II, which cites Schoenberg's *Harmonielehre* alongside manuals by Hauptmann, A.B. Marx, Riemann, and others. Flesch, who paid detailed attention to questions of style

[300] Flesch, *The Art of Violin Playing Vol. II*, 64

in the execution of the "classic" repertoire, was suspicious of the aural complexity of modern works, and their departure from the tonal, technical, and stylistic norms established in 18th and 19th-century music:

> If we now consider the influence exerted by an *exclusive* cult of modern compositions on the development of the art of violin playing, we are in this case also compelled to draw unfavorable final conclusions. The quality of performance of a classical work depends first of all on technical clarity, tonal beauty, stylistic purity and depth of feeling which have continually to be retested. But in the case of modern compositions it is not essential (perhaps in the composer's case, but certainly not in that of the auditor) that all the notes contained in them be really heard. Lapses of memory, when they do not lead to actual catastrophes, are hardly determinable; and our conceptions of pure and impure are turned upside down by intentionally unharmonic combinations. In short, in a performance of this type we can admire only the mnemonic toil and faculty for concentration necessary for the inward assimilation of a creation of the kind [...][301]

Flesch is suspicious of modernist works because he believes they betray the cultivated ideals of violinistic expression that Flesch details throughout *Die Kunst*. He even compares this classical music to a "fountain of youth," which a violinist should draw from in order "to maintain and increase his technical estate."[302] These classic works, dating from the mid-18th to 19th centuries, for Flesch constitute the technical, corporeal, and spiritual foundation of this carefully circumscribed tradition, by which a violinist measured their own cultural development.

The metaphor of the fountain of youth demonstrates Flesch's idealistic conception of classical culture and pedagogy, suggesting that this historical canon might infinitely renew (and be renewed by) performers. At the same time, Flesch exhaustively describes the various hindrances that get in the way of these works' ideal reproduction. This

[301] *ibid*, 116.
[302] *ibid.*

underscores Flesch's expression of romantic amnesia, in which his loose interpretation of contemporary ideas (related to acoustics, psychoanalysis, or post-Hegelian subject-object dialectics) are applied in the schematization of present bodies recreating historical works and expressions. It is precisely this dual rationalism and idealism which rejuvenates the tradition: only the attuned body and psyche can communicate the magic of this historical music for an audience.

5.3 Adorno, Kolisch, Towards a Theory of Musical Reproduction

"There is validity in the suspicion, once expressed by Eduard Steuermann, that the concept of great music—now passed to that of radical music—itself belongs to a moment in time, that humanity in the age of omnipresent radios and gramophones has actually forgotten the experience of music."[303]

-Theodor W. Adorno, *Philosophy of New Music*

In contrast to Flesch's orientation towards the performance and reproduction of classical music (almost exclusively), Adorno, in the introduction to his *Philosophy of New Music*, makes the case that the development of Schoenberg's oeuvre – his turn to expressionism, and then to serialism – reflects the truth of contemporary society and its fatal attachment to rationalism, administration, and unfreedom. Still, Adorno's pessimistic outlook did not allow him to celebrate Schoenberg's music as an unqualified success – in fact it was the objectifying unfreedom of the composer's late serialism that, for Adorno, marked something of a terminal point in the progression of European art music. Adorno's understanding of music history subscribed to Hegel's teleological

[303] Theodor Adorno, *Philosophy of New Music*, trans. Robert Hullot-Kentor (Minneapolis: University of Minnesota Press, 2006), 21.

history, and though he dropped Hegel's idealistic claims to a final synthetic moment, Adorno argued that Schoenberg's music held an advanced position when compared to the regression of Stravinsky's appeals to mechanistic rhythm, jazz, and atavistic imagery (as in the *Rite of Spring*).

As a violin pedagogue, Flesch saw the classical canon as a fount of knowledge, cultural memory, and endless spiritual renewal, even if its ideal reproduction was blocked by a number of psychic, physical, and material hindrances, including the commercialization of the profession in coffee and movie houses. As a social critic, Adorno viewed the glossy, mass reproduction of European art music as another sign of the industrialization of culture, and the emptying of the music's historical and social truth content. The above quote from PNM articulates one of Adorno's influential theses: that the unifying, public events of 19th-century music – for example the spectacle of Beethoven's heroic symphonies, or the culture- and nation-defining performance of Bach's St. Matthew Passion in Berlin in 1829 – had passed to the private individualism reflected in radical music. This new music resisted the administration and industrialization of the modern subject through opaque utterances, mediated through its own rationally-determined means and methods of construction.

Adorno's reference to Eduard Steuermann hints at the tremendous influence that musicians – both composers and performers – had on Adorno's musical aesthetics. Steuermann was a pianist who, like Kolisch, became heavily involved in Schoenberg's *Verein für musikalische Privataufführungen* (Society for Private Musical Performances), active between 1918 and 1921. As Kolisch notes in his "Interpretationsprobleme bei Schönberg," it was in the private format of this society that Schoenberg was able to come

closest to his ideal performance of musical works.[304] These performances were meticulously coached and rehearsed for a small, but prepared audience, and in some cases musical works were performed multiple times over the course of an evening. If, as musicologist Gianmario Borio notes, what separates a sounding performance from a theoretical conceptualization of the musical work is the text's "complex of possible meanings which cannot be unfolded in a single performance,"[305] then the intense preparation and repeat performances of the *Verein* surely came as close to a structural understanding of the musical work as any sounding realization might.

The Society's cultivation of a mode of performing and listening that attended to compositional ideas contained within the musical work was an ideal that stayed with Kolisch for the rest of his career. In opening remarks preceding the Schoenberg concert series which he curated at the University of Wisconsin-Madison in 1950, Kolisch prepared the audience for a different kind of event than the "hedonistic" one of the conventional concert:

> We don't intend to give our performances the character of a conventional concert, which in its present form, with its hedonistic function and rigid separation of performer and listener, has not proven adequate to establish contact with new phenomena. There is of course no substitute for repeated listening. (The project of 'public rehearsals' which we had in mind for some of Schoenberg's later works could unfortunately not be realized.) In order to make this undertaking meaningful, your cooperation is needed; an attitude very different from that of the average concert-goer. It should consist mainly of receptive readiness and concentration. But our cause would be very well served if you would become active to the point of provoking discussions about anything which in your mind demands

[304] Quoted in: Anne Shreffler and David Trippett, "Kolisch and Schoenberg," *Musik Theorie – Zeitschrift für Musikwissenschaft* 24, No. 3 (2009), 274.
[305] Gianmario Borio, "Work Structure and Musical Representation: Reflections on Adorno's Analyses for Interpretation," trans. Martin Iddon, *Contemporary Music Review 26:1* (Routledge, 2007), 71.

explicit clarification.[306]

In asking his audience to adopt a position of readiness, concentration, and attention to their own capacities of musical-intellectual discernment, Kolisch marks the space of their shared listening as a moment of exceptional communion, involving active (if silent) participation from both listeners and performers. Within this space, set apart from the mass production of classical music or its conventional presentation, Kolisch set out to put into practice his own theory of performance: one which adhered to the construction of the musical work in order to understand the meaning, function, and truth content of each musical thought in relation to the whole.

Kolisch's inward-looking vision, which sought meaning immanent to the work's construction, contrasted with Flesch's more public orientation. Contra Kolisch, Flesch insisted that one of the performer's primary purposes was to bring a composer's work to as many people as possible: "It is certain that we will be serving the composer who has entrusted his message to us most effectively when, first of all, we undertake on behalf of his creations recruiting activities so carried on as to bring them simultaneously to the ken of the greatest possible number of auditors—that is to say, preferably, in the concert auditorium."[307] While Kolisch expressed great regret regarding the "enormous gap between a recognized master [Schoenberg] and the audience,"[308] his commitment to Schoenberg's music, as well as the modes of attentive analysis, listening, and performance cultivated at the *Verein*, clearly outweighed his desire to perform for larger audiences. In fact, later in life, he doubled down on this view: musicologist Anne

[306] Quoted in: Anne Shreffler and David Trippett, "Kolisch and Schoenberg," 266.
[307] Flesch, *The Art of Violin Playing Vol. II,* 116.
[308] Shreffler and Trippett, "Kolisch and Schoenberg," 264.

Shreffler recalls Kolisch's remarks, in a seminar, that "the most perfect realization of a piece of music happens when one reads the score silently."[309] In *Die Kunst*, Flesch critiques the promise of silent reading for its exclusivity, even speaking in moralistic terms about the "*qualified* interpreter [who] has no right to recreate for himself alone, for his own *selfish enjoyment*, but first of all is entrusted with the task of transmitting cognizance of a composition to the great *multitude*."[310]

Clearly, each violinist had different expectations for what the ideal performance might achieve. For Flesch, it involved the affective attunement of musical work, performing and listening subjects, of present and historical minds and bodies. This required attending to the traditions and tastes of historical violinists and composers, and adhering to classical culture's idealization of harmony, beauty, and the greatness of historical works. For Kolisch, the primary objective of performance was the realization of musical meaning in the construction of the work. This meant the exclusion of "categories of feeling, taste, tradition, convention, etc., as basis for interpretation,"[311] categories which Flesch meticulously describes in *Die Kunst*. Instead, Kolisch cultivated a dogmatically formalist attention to the musical score as the sole authority of musical meaning. This manifested in thinking of the body as a mere executant of principles of timing, articulation, and *espressivo*, which all drew from the construction of the work: "Instead of thinking in technical terms such as 'fingering,' 'bowing,' 'pedaling,' etc., the instrumentalist should think in musical terms such as 'theme,' counterpoint,' 'transitory

[309] Shreffler and Trippett, "Introduction," 196.
[310] Flesch, *The Art of Violin Playing Vol. II,* 2.
[311] Shreffler and Trippet, "Kolisch and the New School," 206.

part,' etc."[312] By using music-analytical terms instead of corporeal ones, Kolisch advanced his program of interpretation as analysis, and formed a reactionary stance against the bodily thinking inherent to a long history of violin practice and pedagogy.

Adorno, like Kolisch, was disdainful of the "culinary" aspects of music-making – a metaphor that musicologist Anthony Gritten traces through several of Adorno's musical critiques. Gritten notes the connection between the culinary metaphor and taste as an Enlightenment term valuing discernment over consumption, arguing that Adorno seeks to dialectically bolster this musical-aesthetic priority.[313] As such, Gritten notes that "in *TTMR* the culinary metaphor is always found in close proximity to another metaphor, namely that of 'the subcutaneous.' The former denotes an obsession with surface, with 'skin' (*TTMR* 109, 228), while the latter brings with it the demand to cut through the skin into the musical body beneath [...] he is clear that subcutaneous performing aims for 'a higher, constructive form of clarity based upon analysis' (*TTMR* 100)."[314] That is, Adorno turns to the "subcutaneous" to signal the importance of musical structure and form. What Gritten stops short of pointing out, and what Kolisch points out perhaps too bluntly, is that Adorno and Kolisch view taste, like historical music and traditions, as an older aesthetic paradigm, which does not properly account for the importance of musical form in the unfolding of the 19th- and early 20th-century material histories. Taste, linked to the "culinary," becomes a calcified, historical construct, which in its more caricatured, contemporary guise, works as a stand-in for the passive and superficial consumption of mass culture.

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[312] *ibid*, 202.
[313] Anthony Gritten, "Cooking up a Theory of Performing" from *Adorno and Performance*, ed. W. Daddario and K. Gritzner (UK: Palgrave Macmillan, 2014), 90.
[314] *ibid*, 93-4.

In his draft of *TTMR*, Adorno departs somewhat from his composer- and score-centric aesthetics, instead focusing on histories of bodily gesture and notation. Of course, performance *qua* interpretation still fixates on the slippery objectivity of the work: "True interpretation consists not in the perspectival observation of a work that is given once and for all; rather, the work itself incorporates the dialectic of its observation and thus grants it objectivity through change."[315] In other words, the interpretive demands of the work change with the development of historical consciousness: the work's objectivity is never granted once and for all, but maintained with the passage of history. Reproduction, in Adorno's essay, does not refer to the reproduction of a static musical work, but rather to the synthetic performance of different and often opposing signifying elements within musical writing.

Musical reproduction (in performance and notation) is driven by the dialectic of music's mimetic and abstract qualities. The mimetic nature of music has "always stimulated imitation through gestures, whether those of dance or of work."[316] This mimetic element – what Adorno also refers to as the *gestus* – contains within it music's magical, quasi-mythical qualities. He reads gestural elements in musical compositions as recollections of human experience which oppose rational and abstract thought. On this prehistoric level, Adorno attributes musical gesture not to a willful individual human subject, but to the involuntary reflex, the "animistic shudder."[317]

Antithetically, musical notation capture traces of this *gestus* via its rational and

[315] Adorno, *Towards a Theory of Musical Reproduction*, 213.
[316] *ibid*, 169.
[317] *ibid*, 170.

abstract function. Notation, as the "rationalization of magic,"[318] is the means by which European art music develops polyphonically, structurally, and formally.[319] Notation, in its capacity for abstract representation, disciplines musical material: this separation from its ritualized performance makes music autonomous, capable of its own rational development. Recapitulating the argument in both *PNM* and the *Dialectic of Enlightenment*, the rational drive represented in notation in turn threatens to become totalitarian. At the same time as being responsible for music's autonomy, notation "regulates, restrains and represses whatever it serves,"[320] namely the dynamic, mimetic *gestus* proper to musical practice. According to Adorno, the rational and mimetic poles manifest through both notation and the body, which move between abstract discipline and gestural impulse.

The dialectical opposition between the culinary and the subcutaneous plays out in relation to this dialectical pair of the mimetic and the abstract. A performer might harness impressive, gestural effects, without a proper understanding of their relation to the structural image of the work. Adorno provides a few examples of this, including the famous conductor Arturo Toscanini, whose style he critiques as "dislocated from all structure…a hundred dryly correct details are strung together through the endeavours of a technological temperament to produce escalations and explosions."[321] For Adorno, Toscanini – who as the conductor of the NBC Symphony Orchestra sat at the heart of classical music in the culture industry – represented the short-sighted mechanization of performance practice. The streamlined nature of Toscanini's performances was perfectly

[318] *ibid*.
[319] *ibid*, 173.
[320] *ibid.*
[321] *ibid*, 196.

suited to the technical/technological dislocation of music's sensuality from its form, reproduced over the television and radio.

According to Adorno, Toscanini's approach failed to synthesize three media of music's appearance: its abstract notation, its mimetic *gestus*, and the "instrumental language" of its performance – what Adorno describes as an idiomatic quality unique to the language of the instrument or voice. While Toscanini attends to the superficial instructions of the score, he misses the subcutaneous gestures underlying their construction. As a result, his "escalations and explosions" sound manufactured, and his tone language is divorced from structural reading. Adorno considers only a synthesis of structure, gestus, and the performer's personal language to be a truthful retrieval of what is covered by notation: the "x-ray image of the text," or the "objectivity [of the work] located within the subjective spontaneity of the performer."[322] This is what Gritten refers to when he writes "The culinary quality of sound, in other words, must sometimes be embraced in order to be overcome."[323] That is, Adorno understands the importance of working dialectically through the resounding, gestural body, even if only relation to a structural reading immanent to the musical work's construction.

In his fragmentary notes for the *TTMR* draft, Adorno comments on specific recordings, which further elucidate his conditions for structural reading. He critiques a recording of Jascha Heifetz, Emanuel Feuermann, and Arthur Rubinstein playing Beethoven's B flat major trio as follows: "the sensual euphony of the sound eclipses the realization of the construction…the transitional model towards the end of the 1st movement, immediately before the second subject, loses the quality of distance, of not

[322] *ibid*, 202.
[323] Gritten, "Cooking up a Theory of Performing," 92.

quite being there."[324] Adorno's argues that the sensual elements of their sound covers the structural integrity of Beethoven's writing. They privilege superficial euphony over a sense of structural rhythm, for example shown in the lack of resistance to forward motion in the last movement, which fails to properly demarcate the coda: "The last movement too quick, too fluid, without the element of disturbance, resistance, the 'Flemish' (Rubinstein misses a number of the theme's off-beat accents). But this is not a matter of 'taste'. Rather: the sense of the long coda lies precisely in the *dissolution* of the element of resistance in motion. If that resistance is missing, the motion cannot ensue: so there is an interaction between character and musical context."[325] Listening to the recording, it is apparent that Rubinstein has a tendency to gather forward momentum in sixteenth-note runs throughout the last movement, preceding the coda. As such they miss the sudden shift from a restrained *Allegro moderato* to the *Presto* and *piú presto* of the coda. It is clear in this recording that there are aesthetic imperatives – related to the bravura tradition traced by Flesch – which are to some extent overriding structural considerations of Beethoven's own idiomatic experiments with sonata form.

What is essentially a conflict between the trio's sophisticated bodily thinking and Beethoven's musical thinking, Adorno frames not as a matter of taste, but of an abnegated responsibility to context: both the context of the movement's structural features, and to the social meaning of Beethoven's music. Rather than capturing the intimacy of chamber music and parsing the composer's construction (the ideal of the *Verein*), for Adorno, this trio serves the culture industry and its popular glosses of classical music. One wonders if this recording of the "Archduke" Trio was not in his

[324] *ibid*, 75.
[325] *ibid*, 76.

mind when he wrote in *PNM*: "Since the culture industry has educated its victims to avoid straining themselves during the free time allotted to them for intellectual consumption, they cling just that much more stubbornly to the external framework of a work of art which conceals its essence. The prevailing, highly polished style of interpretation, even in the field of chamber music, willingly makes concessions in that direction."[326] This again presents the dialectic of the culinary and the subcutaneous: the culture industry's calorie-free "tastes" designed to entertain a disengaged listener. This is in contrast to the formulations of 18th-century taste (seen in Chapter One), which involved the playful engagement of the mind's faculties of reason and imagination: a form of pleasure that set the foundation for the later constructions of musical works, and the various histories of tones, bodies, and structures contained therein.

Adorno posits three performers – Fritz Kreisler, Rudolf Kolisch, and Enrico Caruso – who find the idiomatic component of their instrument through the structural demands of the work: "Kreisler and Kolisch do not speak their language despite but rather through rigour, and this is the legitimate place for the performer's subjectivity. Categories such as violin tone, attack etc., in general the idea of speaking the instrument's language. Also Caruso. No great interpretation without this component."[327] While Adorno considers the instrument's language to be a crucial component of a synthetic interpretation, he never manages to work this "instrument's language" into an operant material history. Adorno's inability to provide a detailed, historical-material account of "instrumental language" and Kolisch's eschewal of "categories of feeling, taste, tradition, convention, etc., as basis for interpretation," are related in that they are

[326] Adorno, *Philosophy of New Music*, 10.
[327] Adorno, *Towards a Theory of Musical Reproduction*, 56.

both the result of a privileging of musical structure over sound. Listening to recordings of Kolisch, one immediately hears the cultivated aspects of his own tonal and technical facility – his excision of violinistic traditions from his pedagogy was not due to unfamiliarity, but to a deliberate advocacy of dogmatic formalism. By contrast, Adorno's inability to speak to a material history of instrumental language reveals the gaps in his knowledge, which accounts for musical materials proper to composition, rather than performance, and the cultivation of tone and bodily discipline.

5.4 Kolisch and Beethoven

In some of his writings from the 1940s, Kolisch provided some of his clearest examples of "re-creative analysis," which determined principles of performance by parsing compositional structures. These analyses revolve primarily around the chamber works of Beethoven, which Kolisch explores through an outline and sample analyses, as well as in his article, "Tempo and Character in Beethoven's Music," which appeared in the *Musical Quarterly* (1943).

For Kolisch, Beethoven's music embodied a "New Spirit": a radical experimentation with traditional forms and characters. Kolisch's account, echoing aesthetic pronouncements of figures like Hanslick, Schenker, and Adorno, argued that Beethoven's bold, subjective individualism was manifest in his choice of tempi, his musical construction, and his unerring innovations. The analytical attention that Kolisch devotes to Beethoven's works stakes out the violinist's position as primarily an interpreter of "autonomous music" expressing composers' "deepest musical thoughts."[328]

[328] Quoted in: Shreffler and Trippett, "Kolisch and the New School," 203.

The focus on Beethoven also marks Kolisch's break from violinistic traditions of interpretation, even those stemming from the interpreter-par-excellence, Joachim, whose playing does not escape Kolisch's critical attention: "As a little boy I had the opportunity to hear the cycle of Beethoven Quartets played by Joachim. Joachim's position as the representative interpreter of Beethoven was then absolutely unquestioned. And yet, in spite of all my awe for this venerable figure, I cannot help knowing today that his performances were far from realizing Beethoven's true meaning."[329] Kolisch's professed admiration of Joachim recalls Flesch's account of Joachim, as a violinist harmoniously melding his own subjective personality with that of the composer and the musical score. However, for Kolisch, this melding of subjective and objective components was in fact not an ideal, but a deviation from the "true meaning" of Beethoven, which Kolisch located in the score "as the only source of information."[330]

In comparison to Adorno, Kolisch's account of musical meaning was remarkably positivistic, insisting that analysis would provide "objective knowledge, enabling us to dispense with subjective interpretation"[331] – an ideal which Kolisch maintained even despite both Schoenberg and Adorno's insistent objections. This dynamic – the total erasure of the performing subject, in service of a structural re-creation of the musical work – was paradoxically the position that assured Kolisch his own unique identity. That is, by aspiring for total objectivity in his performances, Kolisch posited a performance ideal that staked out a radically different position from figures like Joachim, Flesch, or virtuosi whose mainstream media presences and superficial performances, by Adornian

[329] *ibid*, 205-6.
[330] *ibid*, 206.
[331] *ibid.*

logic, fed the consumerist tendencies of the American culture industry.

For Kolisch, Beethoven's represents the continued development of musical ideas over the bodily exigencies common to traditions of instrumental playing. In his 1943 article, Kolisch looks at the correspondence of tempo and character in Beethoven's chamber works – a correspondence that Kolisch likens to that of body and spirit. That is, tempo, as something measurable, resembles the outward materialization of musical character. And character, like the spirit, contains traces of a longer cultural and intellectual history, which transcend the measurable components of tempo (or indeed an individual body). In some ways, Kolisch's disavowal of the technical aspects of bodily execution is afforded by the disjunction of tempo and character, or the assumed antithesis of body and spirit. Yet the content of his analyses often references cultural-historical formations that derive from traditions of bodily performance, suggesting a deep linkage of body and spirit, even as the two become disjointed in Kolisch's historical moment.

The separable nature of body and spirit, or tempo and character, reveals itself in Kolisch's explanation of what he calls Beethoven's "New Spirit":

> Thus we see that the old Italian terms seemed 'nonsensical' to Beethoven; they now indicate only a tempo and no longer the 'character' of a piece. These two categories are now separated, their juxtaposition deepened by the metaphorical antithesis 'body—spirit." [...] The categories of tempo and character can be expressed independently from each other: tempo in absolute and exact fashion by means of the metronome; character by means of the adequate and discriminating terms of the vernacular. The conventional categories of tempo—the *tempi ordinarii*—are no longer suited to embody the 'New Spirit.' This 'New Spirit' characterizes Beethoven's colossal and revolutionary achievement and manifests itself in the new types of expression with which he enriched the language of the Vienna Classic Style.[332]

[332] Rudolf Kolisch, "Tempo and Character in Beethoven's Music," *The Musical Quarterly* Vol. 77, No. 1 (Oxford University Press, Spring 1993), 96.

In this passage, Kolisch describes the disjunction of tempo and character along historical and cultural coordinates: the old Italian *tempi ordinarii* (which Leopold Mozart listed in his 1756 treatise) no longer capture the character of the movement types and forms in Beethoven's music. As such, Beethoven's "New Spirit" encapsulates his "colossal and revolutionary" creations, which transform the character types of Italianate classicism. Attributing the "New Spirit" to Beethoven's compositional innovations, Kolisch posits a historical break preceding that of Schoenberg and musical modernism. This break is not only what separates character from tempo indications, but older traditions drawing from the bodily thinking of performer-composers, to a newer sensibility premised on ideas and forms in the musical thinking of revolutionary composers.

Kolisch's commentary in "Tempo and Character" presents a nuanced account of re-creative analysis, hinging on the performer's discernment of character "by means of the adequate and discriminating terms of the vernacular." The vernacular element of musical character – opposed to the objective, mathematical terms of tempo – involves knowledge of the cultural histories inhering in musical forms and topoi. For Kolisch, "Musical character manifests itself in the musical form,"[333] meaning that comparative and historical analyses of form lead to fine-grained knowledge of music's character and spirit.

Kolisch undertakes such comparative analyses throughout "Tempo and Character," providing dozens of examples from Beethoven's solo, chamber, and orchestral works. These examples are categorized by their movement type, and special attention is given to specifications of these movement types (such as Adagio cantabile versus Adagio sostenuto), in relation to tempo and meter. Beyond this, Kolisch traces

[333] *ibid*, 102.

certain material and cultural histories that manifest in musical form – histories that are based in song, dance, variation-writing, and folk music. For example, he traces the theme from the Allegro piacevole in Beethoven's second violin sonata to the "physiognomy of the Waltz-type"[334] – a characteristic gestural element that is also seen in the Opus 18 string quartet no. 4. Elsewhere, he finds the marks of the *Ländler* and *G'strampfter* (also known as the *Schuhplatler*) folk dances in Beethoven's Scherzo movements.[335]

While these references are important for discerning character types in Beethoven's music, part of the "New Spirit" of the pieces derive from the composer's ability to abstract and transform such dance elements, inventing new musical ideas and character types. Kolisch writes, "It is in the domain of the Scherzo that Beethoven's power of creating character types is revealed in the fullest degree. Beethoven leads the Scherzo far from its dance-origin as well as from the inherited Early Classic types; he drives it through all the phases of demonic passion to its very negation in the 'Scherzo serioso.'"[336] Beethoven's transformations and negations of the Scherzo reflect the forging of a new spirit of composition. This abstraction of dance forms resembles Bach's transformations of baroque dances through the musical thinking of his instrumental pieces. Kolisch's reading of Beethoven intensifies this antithesis of transcendent music and the material bodies playing it, in large part by ignoring the performing body altogether. This is reflected in the abstraction of the musical idea from dance, a connection that is in some cases "completely broken," such that "of the original Scherzo

[334] *ibid*, 301.
[335] *ibid*, 302.
[336] *ibid.*

only the shell of the form remains, filled with hitherto unknown formations."[337] The rhythms linked to corporeal movement and expression are replaced with the movement of ideas, abstract transformations, and negations.

This abstraction of dance is linked to Beethoven's abstraction of tempi, "conceived without consideration of their practical possibility."[338] Given that these tempi are part of the musical idea, Kolisch insists that they remain independent from bodily considerations. For "this idea is not derived from the instrument; it does not even meet the instrument half-way."[339] By Kolisch's account, Beethoven's tempi – as integral parts of the compositional idea – refuse to compromise with considerations of bodily practice, again marking the intensified prioritization of musical over bodily thinking.

In his essay on Kolisch and Adorno, musicologist David Trippett draws attention to the affinities and contradictions between both thinkers. While they both privilege a structural reading of the work, Kolisch's dogmatic insistence on an ideal performance premised on objective score-reading strikes Trippett as a direct negation of subjectivity, risking a retreat into the Marxian false consciousness that Adorno hoped to guard against. Following the logic of Kolisch's intense formalism, Trippett writes:

> [...] the notational dictates of a score correspond here to a literal musical object, such as the fixed magnetic field of a recorded tape reel: the performer's body as human magnetophone 'plays' the objectified music as inevitably as the electromagnetic 'heads' follow the encoded magnetic information along its singular path between reels [...] The result in both cases is not only a repeatable, objectified performance, but a performer as object.[340]

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[337] Rudolf Kolisch and Arthur Mendel, "Tempo and Character in Beethoven's Music—Part II," *The Musical Quarterly* Vol. 29, No. 3 (Oxford University Press, July 1943), 305.
[338] Kolisch, "Tempo and Character in Beethoven's Music," 97.
[339] *ibid.*
[340] David Trippett, "Kolisch and Adorno," from *Rudolf Kolisch in Amerika*, 234.

In following Kolisch to this undialectical extreme, Trippett articulates the paradox haunting the idealist aesthetics of Kolisch, Adorno, and Flesch: for each of them, any form of individual expression is still premised on the rationalization and mechanization of the performing subject. While Flesch attempts to retain the possibility of a performer who balances their subjectivity with the objective aspects of tradition and discipline, even he sees the pedagogical act as primarily constituted of unlearning, and in the end momentarily escaping rational study in the act of performance.

Kolisch's formulation of re-creative analysis intended to close the historical gap between performance and composition by bringing considerations of performance in line with an analytical attention to compositional structure. Interpretation might be replaced with analysis, and "An ideal analysis would reproduce the mental process of composing."[341] Kolisch objected to Flesch's approach – reading scores in reference to the body. He also spoke critically of mystical thinking that prevented performers from speaking analytically about certain revered works:

> In the case of the last [Beethoven] quartets this venture represents a great responsibility, as they have been considered 'forbidden territory' and have been covered with a veil of mysticism and transcendental inaccessibility. But in all modesty and with the attitude of deepest veneration before the grandeur of these documents, I believe it necessary that the taboo be lifted and the miracles be brought into a stage of more enlightened consciousness.[342]

I would argue that Kolisch here observes a particular instance of romantic amnesia: the transcendental mystification of Beethoven's late works. In contrast to Flesch, who advocates a kind of forgetting or unlearning, which allows the violinist to enter the pre-analytic part of the brain, Kolisch here eschews interpretation and "hermeneutic

[341] Jan Philipp Sprick, "Das Beethoven-Projekt," from *Rudolf Kolisch in Amerika,* 220.
[342] *ibid.*

attempts" for analysis, logic, and construction. If, as Trippett suggests, Kolisch falls into a form of Marxian false consciousness in his quest for the ideal reproduction of the musical work-object, it is the result of his guarding against another form of false consciousness: a retreat from rational study and analysis, represented in performers' romanticizing of historical music and *Geist*.

After all, it was the development of classical music into an art form devoted mainly to the reproduction of historical music, spirit, and compositional genius, which resulted in the crisis of subjectivity for 20th-century performers. That is, making oneself a vessel for the transmission of historical *Geist* required instrumentalizing performers' bodies and subjectivities. By embracing this emptying of performers' subjectivity in favour of the composition of new work, Kolisch puts himself in an authentic position to insist on the continued development of a Hegelian teleological history, with serial music at the apex of music's spiritual and cultural enlightenment. Despite his total faith in rational analysis, the end goal of musical performance for Kolisch still involves a form of transcendental spirituality – a sentiment which surfaces in his advocacy of reading chamber music from the score, rather than from individual parts: "by visualizing and thus imagining the totality of the music instead of only one part, the basic attitude of the performer is essentially altered and transferred to a higher spiritual level."[343] This analytical attention forms part of Kolisch's program for musical enlightenment, which seeks to move beyond the body – its historical traditions and circumscribed tastes – in order to preserve the narrative of music's progressive abstraction, rationalization, and transcendence.

[343] *ibid*, 221.

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Of course, it is one thing to transcend the body in silent reading, and another to do it in the act of performance. In 1947, Kolisch recorded the first movement of Beethoven's F minor string quartet (Op. 95, No. 11) with the Pro Arte Quartet at the University of Wisconsin-Madison. Every aspect of Kolisch's playing suggest an incredibly studied attention to vibrato, articulation, left and right hand techniques: in short, all of the bodily traditions that Flesch analyzes, and which Kolisch attempts to fully forget. Kolisch's claim that even the unwritten "Espressivo could thus be transformed into an *objective* performance element"[344] signals this forgetting of practice: Kolisch's successful overcoming of physical and technical hindrances (including the missing finger on his left hand), in order to follow musical meaning through the written score. Of course, Kolisch exhibits his own romantic amnesia by imagining the *espressivo* as an objective element of the musical work, rather than as the historical cultivation of tone as the melding of inner subjectivity and material practice.

Still, many aspects of the Pro Arte recording reflect Kolisch's precise attention to structural features of Beethoven's writing. Throughout the movement there are clear tempo and character distinctions between the first theme, characterized by its running sixteenth and eighth notes, and the emergence of the second theme, characterized by a long, floating melodic line. The entire performance of the movement dramatizes this dialectical opposition between the forward-pushing sixteenths and the reluctant *espressivo* of lyrical passages. The tempo – presumably drawn from Beethoven's nearly impossibly fast prescriptions – turns many of the running sixteenth-note figures into

[344] Trippett, "Kolisch and Adorno," 229.

gestural flashes, akin to Adorno's mimetic gestus. The tempo relaxes through the lyricism of later themes, allowing for the long melodies to float and spin out, contra the insistent drive of the first theme.

These differences are reflected in some of Kolisch's written instructions for performing the Adagio ma non troppo from the Eb major quartet, Opus 127. Despite the significant difference between the Adagio and Allegro characters, certain aspects of Kolisch's instructions are familiar in the Allegro recording. For example, his instruction that the performers should suppress accents on strong beats, in order to produce the character of the Adagio, is audible in the long melodies that he plays in the Allegro from Opus 95. The phrasing of these melodies is attentively crafted such that they avoid an obvious emphasis of meter – a direction that Flesch also repeatedly gives in Book 2 of *Die Kunst*. Elsewhere, Kolisch reverts to historical practices and images as analytic terms, for example the quartet's middle voices, which should create a "completely homogenous sound [...] resulting in organ-like chords."[345] And Kolisch's harmonic analysis of the opening of the Eb Adagio reverts to a "thorough-bass sketch" demonstrating "the uncannily 'suspended atmosphere' of the theme."[346] By describing harmony and polyphony through older traditions of figured bass and organ-playing, Kolisch draws attention to the functional role that historical instrumental traditions still play in his version of analysis and interpretation, even if only by way of metaphor and abstraction.

Kolisch's 1949 recording of Schoenberg's *Phantasy* with Eduard Steuermann likewise demonstrates these performers' attention to historical templates residing in the

[345] Sprick, "Das Beethoven Projekt," 225.
[346] *ibid*, 224.

score and its realization. Throughout, Kolisch draws out the abstracted rhythms of Waltz and Ländler dances, such as the triplet figures beginning in measure 7 of the *Phantasy*. The *espressivo* quality of these dances is set up in bold contrast to the square rhythm of the opening – a bare exposition of Schoenberg's row. The dramatic swings in rubato, and the extreme moments of accelerando, ritardando, and dynamic shifts, exhibit Kolisch and Steuermann's attention to the improvisatory spontaneity conveyed through the fantasy genre, which moves between structural exposition/recapitulation, gestural motifs, long melodic lines, and virtuosic explosions (through violin techniques such as three- and four-note chords, flying spiccato, and extreme leaps in register).

Carl Flesch's recording of Henri Vieuxtemps' Rondino for violin and piano (Opus 32 No. 2) similarly engineers impulsive, virtuosic gestures. Recalling his remarks on Vieuxtemps from earlier in the chapter, Flesch linked the "Vieuxtemps rubato" with Ysaye's style, urging his reader to find the "desultory, unpremeditated, capriciously imaginative factor" to "infuse the breath of life into the rigid note-picture."[347] In his recording, Flesch capitalizes on Vieuxtemps' writing for the body: the rapid scales in single-notes and chords, designed to create virtuosic flourishes, or the leaps in register designed to feature the violinist's expressive vocalism, through different kinds of portamento (which Flesch catalogues at length in *Die Kunst*).

Both Flesch's performance of Vieuxtemps and Kolisch's performance of Beethoven/Schoenberg rest on the reproduction of specific instrumental and dance traditions. Furthermore, the *Phantasy* and Rondino both require the violinist to engineer a sense of virtuosic spontaneity, even when the composition is fully notated. By his own

[347] Flesch, *The Art of Violin Playing Vol. II*, 203.

descriptions, however, the element of fantasy in Kolisch's performance comes from knowledge of Schoenberg's musical references and abstractions; even the *espressivo* qualities of his timing and tone production are supposedly predetermined by the musical work. Flesch, by contrast, would seek to suspend rational reflection and understanding in his performance. It is precisely Flesch's mechanically programming of the scales and arpeggios comprising the Rondino into the violinist's body that necessitates their unconscious unlearning in performance – a turn towards the Dionysian self- and world-forgetting that encapsulates the Vieuxtemps-Ysaye brand of virtuosic performance.

5.5 Conclusion

Flesch's *Die Kunst des Violinspiels* schematizes the performing body, metaphorically dissecting it into its subjective versus objective parts and positions. By describing the conditions of the disciplined performing body in such detailed, analytical terms, Flesch hopes to turn the body into a fluid mechanism for the ideal reproduction of the musical work. Flesch's rational and historical study of bodily practices turn, in the moment of performance, into the forgetting of self-critical practices. This romantic amnesia functions to unleash the disciplined body as a vessel of spirit, channeling the intuitive feeling and knowledge of historical composers and violinists.

Kolisch, on the other hand, critiques the romantic amnesia he sees in his contemporary performers – suggesting that rational, structural analysis should counter attempts to obscure or obfuscate certain musical works or mechanisms. In word (if not in deed), Kolisch eschews the importance of the performer's subject position, suggesting that the ideal reproduction be based upon a structural analysis of the work's true meaning

and realization. However, this account is similarly based on forms of idealization and forgetting. That is, Kolisch's brand of formalism carries on the idealization of the musical works by composers, putting total faith in rational, structural construction (even against the objections of his own esteemed brother-in-law, Schoenberg). While this ideal of objective interpretation seeks analytical knowledge of the musical work's construction, it also actively forgets the cultural histories contained and carried by performing bodies. Furthermore, it attributes forms and figurations that arose out of bodily practice, to compositional ideation, presenting a reductive account of musical creativity that does not take into account the ways in which corporeal practices in fact construct musical thought.

Like Kolisch, Adorno places more importance on structural considerations of the musical work than on its sonic and corporeal realization. At the same time, Adorno identifies a central dialectic of performance, pulled between the rationalization of notation and the impulsive, gestural movement of bodies. While Adorno is unable to speak about histories of bodily practice in as fine-grained a way as Flesch, his dialectic encapsulates one of the central disciplinary tensions of this dissertation, between the rational circumscription of performance pedagogy and the difficult-to-anticipate modes of knowledge-transmission that accompany the historical disciplining of bodies. This non-linear accrual of knowledge and ideology results in 20th-century performers who are at the same time finely-tuned instruments and thinking subjects who channel confluences of historical materials, bodies, and spirits.

CONCLUSION

Music About Bodies

As a young violin student, I was primarily interested in practicing historical works because I had heard other performers play them. My developing skill as a violinist allowed me to progress through more difficult and dense pieces. More importantly, however, playing these pieces allowed me to momentarily inhabit the bodies and identities of my violin heroes, past and present. As I became familiar with narratives of music history—the development of sonata form, the emotional and structural maximalism of romantic music, the fragmentation of tradition in modern and post-modern music—it became clear to me that within the evaluations of written history, this uncanny experience of corporeal becoming was by and large neglected. Music history, as many musicologists have now noted, has historically been a composer-centric affair. Beyond this, performance is not generally counted as a creative act—at least not in the way that composition, poetry, or visual art can be. This contradiction between music's affecting, corporeal immediacy, and the abstractions of notation, composition, and theory that regulated the creative act, motivated me to begin researching the historical coordinates of these disciplinary divisions.

This dissertation has collected my research thus far on the rationalization of the performing body and its dissociation from musical composition. Part of this story, as narrated in Chapter Two, is the shift from schematic practices of the 18th-century to the idealism and formalism that characterizes interpretive practices of the 19th century, and particularly within German *Werktreue* culture. I traced practices of schematic

composition and improvisation in the 18th century to the ideological binds presented by classical culture in the 20th century. This latter historical moment demonstrates the way in which the performing body continues to serve multiple positions and functions: as an empty conduit for historical spirit, a mechanism for musical reproduction, and a thinking/feeling subject who arbitrates questions of musical perception, taste, beauty, and truth.

One of the tensions in this history is that between conceptions of instrumental study as a means of experimentally acquiring new knowledge and as the disciplinary maintenance of tradition. While it is easy to point, in theory, to the ways in which these two aspects of study complement each other, in practice it involves fraught negotiations at personal, group, and institutional levels. I have drawn attention to the progressive dissociation of composition and performance throughout the 18th, 19th, and 20th centuries—the series of historical conjunctures that categorically separate notions of creative genius and its reproduction. I have argued that even as performing bodies are abstracted and seemingly erased from structural considerations of musical meaning, they continue to function as a primary medium for the formation and transmission of musical knowledge, affect, and subjectivity.

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