Artistic Practice as Research in Music: Theory, Criticism, Practice

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Chapter 9
The Role of the Musical Instrument in Performance as Research:
The Piano as a Research Tool
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The theory of piano playing which deals with the hand and its physiology is distinct from the theory of music.  
Heinrich Neuhaus (1900/1993: p. 86)

Facing the unknown and disrupting the known is precisely what artist-researchers achieve as they delve into theoretical, conceptual, dialectical and contextual practices through artmaking.  

The formal innovation, as well as the psychological progression, prompted by the cyclical pairing of arioso and fugue in the finale of Beethoven’s Piano Sonata in A flat major, Op. 110 (1821) has kindled the analytical curiosity and critical imagination of many writers on music. Charles Rosen has spoken of ‘the old-fashioned and banal devices’ of fugal writing acquiring new meaning within ‘a dramatic scenario’ for the first time in the history of music (2000: p. 375), and argued that the ‘combination of slow movement and finale for op.110 is unclassifiable’ (2002: p. 12). Donald Tovey wrote about the ‘deep sorrow of the arioso’ finding ‘relief in the quiet discipline of a contemplative fugue on a noble and terse theme’ (1931: p. 207), and Maynard Solomon referred to the ‘psychic wound’ that the Ariosos dolente lays bare, and the healing process that ‘takes all of Beethoven’s imaginative powers’ to bring about in the ensuing fugue (2003: p. 238-9). The Arioso dolente itself has been described as ‘one of the most poignant expressions of grief conceivable to man’ (d’Indy 1911: p. 104), leading the listener ‘to the brink of death’ (Brendel 2001: p. 55). In his ‘elucidatory edition’ series (Erklärungsvorschriften) involving Beethoven’s last piano sonatas – Die letzten fünf Sonaten von Beethoven (1912–1921) – Heinrich Schenker imagined the Arioso of Op. 110 as representing the composer’s pain itself, referring to him as ‘a god, who surrenders his own pain to others merely for their [aesthetic] enjoyment!’ (in Snarensberg 1997: p. 114).

The artistic research project I present in this chapter concerns the performance of the finale of Beethoven’s Piano Sonata Op. 110 and has its origins in technical and interpretative questions related to the making of artistic musical performance
on the modern instrument of the piano. The project has been prompted by my desire to understand the reasons why the physical feel of the performance of the Arioso dolente is different in comparison to many other cantabile passages of music from the piano literature, and why achieving a performance interpretation that is both ‘arisco’ and ‘dolente’ is not straightforward and unproblematic. Originating in the phenomenology of artistic piano practice, the research trajectory moves through interdisciplinary theoretical enquiry, leading to the formulation of some principles on pianistic cantabile practice, and an original embodied conceptualisation of the formal plan of the finale of Op. 110 that culminates, in a publicly available recorded performance of the movement. Along this route, I pursue some of the research threads I opened up in my earlier work on pianistic cantabile practice (Doğantan-Dack 2011) and the relationship between embodied artistry and music analytical thinking (Doğantan-Dack 2008). I also introduce new avenues of inquiry by probing in greater detail the two vital variables in piano performance, namely the instrument and the performer. While retrospective narration facilitates the identification of a more or less linear trajectory connecting the key markers of the research process, in reality the creative, theoretical and affective components of this process have been characterised by a continual emergence and complexity (Hasegan and Mafe 2010), clarity about the mutual relationship between practice and theory appearing only gradually at a point of both uncertainty and ambiguity. I could not have foreseen or guessed at the start, either in practice or theoretically, how the research process would evolve or where it would lead.

Although there have been some attempts to incorporate the physicality of the performing body into musical thought (for example, Bamberg 1976; Schick 1994; Montague 2011), corporeal-performative thinking is still not integrated into the dominant music analytical discourse as a fundamental form of musical understanding. This is largely due to the fact that expert music-instrumental knowledge that drives artistic performance making is not commonly recognised as a valid methodological tool that could give rise to novel musical insights and signification. At best, performative parameters are brought into an analytical undertaking in order to confirm what the analyst has already discovered through score-based analysis. For example, in her recent book titled The Process of Becoming (2011), Janet Schmalfeild claims ‘considerable growth towards a self-awareness’ of the limitations and problems that were inherent in her 1985 article ‘On the Relation of Analysis to Performance: Beethoven’s Bagatelles Op.126, Nos. 2 and 5’, and argues that her recent work integrates analytical discussion of particular pieces of music with the challenges involved in performing them. Nevertheless, In the Process of Becoming continues to reinforce — in disguise — a discourse that gives the analyst the upper hand in musical epistemology, assigning the performer the role of projecting one or the other analytical reading of the music revealed by score analysis. For example, Schmalfeild frequently refers to the ‘freedom’ of the performer in choosing between alternatives, yet the specified choices are always those offered (and allowed) by traditional analysis; indeed, it is only after a formal analysis has already been carried out by the analyst that the performer is deemed to have a choice. Typically, these choices concern sections that are analytically identified as being formally ambiguous. To cite some examples: ‘It is often what the performer chooses to do, at moments of genuine formal ambiguity, that will shape our perception of the formal process’ (2011: p. 20); ‘the formal ambiguity of Schubert’s opening [Piano Sonata in A minor, Op.42] convinces me that performers of this movement are very much in charge of how listeners will perceive the unfolding design. To explain, I propose multiple ways in which the performer might be free to project the materials of mm. 1–26’ (2011: p. 118). And again: ‘If ambiguity, rather than clarification, is already at the basis of the compositional plan, the pianist is free to choose’ (ibid., p. 120). Consequently, Schmalfeild’s references to performance-related issues appear as ‘add-ons’ to prior analytical readings, rather than integral for the discussion. Even if the pianistic practice has been an important motivation for her analytical venture, she fails to convince the reader that the embodied experience of performing the repertoire in question has played an indispensable role in shaping her analytical thinking. When she puts, for example, the Arioso dolente from Beethoven’s Op. 110 side by side with the main melody from the slow movement of Schubert’s Piano Trio in E flat major Op. 100 as comparable instances of inward-turning music, or of intense expressions of interiority, Schmalfeild does not mention the vastly different phenomenological experiences of performing on the modern piano.

1 The term ‘feel’ in this context should be understood to refer to both a (kinesthetic-tactile) sensation and the related activity generating this sensation.
2 By ‘embodied conceptualisation’, I mean the totality of ideas and understanding derived from (tact) knowledge and representations that are specific to the sensorimotor domain. For a discussion of the notion of embodied concepts, see Bermelinger and Kiefer (2012).
3 My recorded performance of the finale of Beethoven’s Piano Sonata Op. 110, which has grown directly out of this artistic research project, is available online at http://www.minedogmandack.com. The chapter can also be read as an excerpt of this recorded performance interpretation.
4 Jeanne Bamberg’s article represents an early attempt to establish musically, and psychologically, significant relationships between physical gestures as determined by specific fingerings on the piano and analytical understanding of excerpts from Beethoven’s piano sonatas. Steven Schick’s essay is about the integral role of physicality in learning and developing an interpretation of a complex contemporary piece for percussion solo. Eugene Montague’s article is a more recent inquiry concerning how the subjective experience of the performing body involved in playing through Chopin’s Etude Op. 10 No. 1 can be used to understand musical events. Also see Davidson (2012) for a discussion of how biomechanical factors shape the ways musical performances are produced.

5 For critical evaluations of this article, see Cook (1999), Doğantan-Dack (2008), Lester (1995), Rink (2002) and Rosenwald (1993)
piano. In this sense, her assertions about what performers may or may not do in performance are related to her analytical reasoning only through the mediation of an authority derived from score analysis. This situation is not unexpected, and understandable to a certain extent, given that Schmaefeldt does not claim to undertake practice-led research and prioritise the artistic processes of performance making. Nevertheless, when no significant contribution is made to analytical thought from expert pianistic knowledge, the resulting discourse sustains the one-way flow of information or transfer of knowledge ‘from theorist to performer, from page to stage’ (Cook 2012: paragraph 2), lending support to Nicholas Cook’s observation that ‘the basic topography of the relationship between theorists and performers that was established in the 1980s has not been entirely erased’ (ibid.). Within the disciplinary epistemology that continues to pervade the literature on analysis and performance, the idea that there may be interpretative performance alternatives that are not discovered, or indeed are not discoverable, through traditional score analysis, and that a performer can originate musical signification, rather than merely entertain alternatives after the fact of formal analysis, still appears to be unthinkable.

Integrating embodied artistic practice into musical thought requires thinking about and in terms of the musical instrument and the performer’s bodily engagement with it. Yet, in spite of the powerful impetus of the recent ‘performative turn’ to understand music performance ‘as a primary mode of signification’ (Cook, this volume) and to steer musical ontology and epistemology towards performances and away from scores and works (Cook 2001, 2003, 2013), debate about the role of the musical instrument in the creation of musical meaning is still uncommon. Performers do not think merely in and through sound, but in and through the instrument—sound. The general tendency, in performance studies, to speak of ‘the performer’ in the abstract obscures the fact that in reality different kinds of musical instruments involve different expressive means, engender different phenomenologies of performance making and generate different kinds of

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6 For an autoethnographic narrative account of the experience of performing the slow movement of Schubert’s Piano Trio in E flat major, see Doğançay-Duck (2012).

7 Indeed, Schmaefeldt makes her priority clear when she writes: ‘I shall admit, for many years now, I have rarely chosen a fingering, made a decision about pedaling or articulation, or even considered how I will enter and exit keys without having arrived at some kind of [score-driven] analytically based sound image, if only a vague one’ (2011: p. 115).

8 Well-known exceptions from ethnomusicological research are John Bailey’s work on the Afghan late ‘dutar’ (1983, 1992, 2006), exploring how the ergonomics of an instrument can directly influence the sound patterns produced on it; and Bell Young’s research on the Chinese seven-string zither (1984), showing how the tension, posture and movement of the body involved in the production of sound interact with the aural elements and play a crucial role in the total musical experience. For discussions of the relationship between the musician and the musical instrument in terms of social agency, see Burrows (1987) and Austerlender (2009).

9 Because the shape, size and sound-producing mechanism of musical instruments are so different from one another, there is very little in common between, say violin technique and piano technique (Sloboda 1996: p. 115).

10 For an autoethnographic account of how learning to play a different kind of musical instrument prompts changes in the physical, cultural and social identity of an adult musician, see McRae (2009).
advocates’ of an idealistic view of music as the authoritative creations of composers encoded in scores. Indeed, an aesthetic prejudice that assigns greater value to music conceived not directly within the material conditions of sound production but as abstract structure has been prevalent among performers. The pianist Harold Bauer (1873–1951), for example, argued that the ‘duty of the interpreter should surely be to think of composition as such, and to interpret it primarily as music, irrespective of the instrument’ (emphasis mine)! (in Cooke 1999: p. 73). Bauer’s contemporary, the Austrian pianist Artur Schnabel (1882–1951) similarly maintained that musical ideas are conceived in the composer’s mind in the abstract, and wrote: ‘I do not believe that great composers are ever inspired by the specific qualities of instruments’ (in Payzant 1997: p. 79). Such a perspective reinforces not only the Platonic tradition of valuing abstract ideas over their material instantiations but also the romantic image of the composer bringing forth works of genius by drawing inspiration from a spiritual realm without any apparent concern for the material conditions of their realisation. Although a comprehensive history of the conceptualisation of the compositional process in different periods is yet to be written, Beethoven must surely be seen to share the responsibility (or take the blame) for such a mythical image: the first violinist of Count Razumovsky’s quartet, Ignaz Schuppanzigh, complained to him about the difficulty of a particular passage in his Op. 131, the composer apparently replied, ‘Do you think I worry about your lousy fiddle when the spirit moves me?’ (Blum 1986: p. 230).

While performers may be driven in their public pronouncements by these deeply rooted traditions and myths about the nature of musical creation, their artistic practices often attest to different kinds of concerns and commitments. Glenn Gould (1932–1982), for instance, was known for his dismissal of ‘pianistic’ music composed with the particular qualities of the instrument in mind, such as the music of Chopin, and made the drastic assertion that he in fact did not like the piano as an instrument (Payzant 1997: p. 95). In his own words, he preferred ‘the sublime instrumental indifference’ of J.S. Bach (ibid.: p. 83), and believed that the three composers with whom he retained a close relationship all his life – Orlando Gibbons, J.S. Bach and Arnold Schönberg – were uninterested in, if not oblivious to, the specific sonorities and pragmatic demands of the musical instruments they composed for. For all its eccentricity, however, the aesthetic predilection Gould publically advocated was not supported by his practical preference for the instrument of the piano, which he consciously chose over the harpsichord in performing the music of J.S. Bach. He was acutely aware of the physical aspects of pianism and developed a particular penchant for pianos with a specific tactile quality.

What should be emphasised here is that as far as the embodied basis of artistic music performance is concerned, an idealistic aesthetic stance regarding the essence of music and music making is largely inconsequential, since the fact remains that the performer has to create art within the material conditions of the human body and the musical instrument. One cannot make a musical performance by mentally experiencing, understanding, knowing, feeling, or loving a piece of music if an embodied knowledge of it mediated by a particular kind of musical instrument is lacking. In performance making, the mechanisms of intelligibility and expression are bound up with the material affordances of the instrument such that the sensuous, kinaesthetic-tactile knowing becomes foundational, and not secondary, in shaping a particular interpretation. With regard to the instrument of the modern piano, this kind of sensuous knowing is a function of a cultivated sense of touch in both hands, which – coupled with the ensuing sonic image – provides the experiential basis for artistic judgement and knowledge. Whereas the bias of ocularcentrism in Western culture (Jay 1994; Levin 1988) routinely subordinates and ignores the epistemological significance of the sense of touch (Paterson 2007: p. 6), in artistic pianism it is the primary epistemic medium. As musicology’s ontological and epistemological landscape continues to shift so as to endorse the idea of music as performance, researchers will need to scrutinise in greater detail the relationship between artistic expression and all kinds of embodied processes – including those based on culturally non-dominant sense modalities – involved in skilled interaction with musical instruments, in order to be able to widen our understanding of ‘how performances afford the production of meaning’ (Cook 2013: p. 1).

In Medias Res

In the preceding section, I identified, as the genesis of the artistic research project discussed in this chapter, the embodied feel of the performance of the Arioso dolente from Beethoven’s Op. 110. The factors that motivate the transformation of such preconceptual images and sense impressions, which hover fleetingly – as a hunch – over the crossroads of artistic practice and artistic research, into articulated foundations for systematic enquiry are complex: creative impulses, artistic passions, desire for personal understanding, ongoing research interests can all play a part to varying degrees. While these factors would be blended in unique ways in any given artistic research context, the moment that the artist-researcher seizes a sensation or an image and keeps it from receding into the

11 For a discussion of how ideas about genius, inspiration and authorship have been instrumental in the emergence of formalistic approaches to music during the late nineteenth and early twentieth centuries, see Cook (2013, Chapter 1). Cook writes that during this period, earlier ideas of divine authority were transformed into those of aesthetic autonomy (2013: p. 11).
distance within the sensory continuum by marking it for sustained attention, is always in the middle of – and at times in the thick of – an ongoing creative activity. For the artist-researcher, any journey of discovery and creation originates and unfolds within an already established individual creative discourse and praxis, having a distinctive relationship with existing cultural discourses and traditions. Significantly, the questions that become the basis for the research enquiry cannot be asked from outside the particular area of expertise defined by this praxis, which involves specific kinds of aesthetic values, artistic commitments and judgments. In order to be able to ask why a cantabile performance of a particular piece of music on the modern piano feels physically different in comparison to many other cantabile passages of music from the piano literature, one needs to have attained, through long-time sustained interaction with the instrument, a certain kind of know-how associated with cantabile practice, which is part of the skill repertoire of a classical pianist.

The high value attached to the skill that is required to perform in a cantabile manner in the Western instrumental tradition is not confined to the modern piano, but extends to other instruments such as the violin, as well as to earlier keyboard instruments. In each case, the affordances of the particular kind of instrument involved – the kinds of movements, gestures and actions it allows the musician to perform as the physical basis of music making – dictate the nature of the skill that would define cantabile practice. In this regard, the modern instrument of the piano, with its iron frame, felt-covered and heavy hammers and double escapement mechanism, which jointly support a huge dynamic range, great physical power as well as delicacy and agility, presents a very different phenomenology compared to its eighteenth-century predecessors including the harpsichord and the fortepiano. Earlier keyboard pedagogies, therefore, involve different kinds of concerns with regard to cantabile practice, related mostly to such techniques as ornamentation, articulation and punctuation that could be used in order to veil the inability of the instruments to sustain notes and to decrease or increase the volume of a tone.

With reference to pianistic cantabile, Heinrich Neuhaus wrote: “Someone asked Anton Rubinstein if he could explain the tremendous impression which his playing made on the audience. He said roughly the following: ‘Perhaps it is due partly to the very great volume of sound, but mainly because I have put in a lot of work in order to succeed in making the piano sing’. Golden words! They should be engraved in marble in each classroom in each school or conservatoire where piano is taught’ (1993: p. 67). Further research is required to understand how instrumental cantabile practice ‘constructs’ the performing body, and how the aural and tactile (and where relevant, visual) images which cantabile playing generates might be related to broader cultural practices and values. In particular, research is needed to explore which aspects of cantabile practice – beyond its association with the singing voice, which has been regarded as the ideal model for expressive performance within western musical aesthetics – give rise to cultural value.

While expert pianists will not attend to this dynamic quality in every episode of cantabile playing, once they choose to attend to it they can bring its particular kinaesthetic-phonological felt dynamics to the fore.

In this chapter, I do not discuss the role of the pedal in pianistic cantabile practice, but focus on its manual phenomenology.

In cantabile playing, continuity of pressure involves smoothly changing, rather than identical, key pressure across a given musical unit.

The basic tactile difference between a harpsichord and a piano is that the harpsichordist begins to withdraw from the key the moment the string is plucked, which is ’normally a significant distance from the key-bed’, whereas a pianist normally depresses the key to its full extent, i.e. to its bed (Payzant 1997: p. 101).
out of serially coordinated kinaesthetic-tactile patterns, including those required for cantabile performance.

To understand the dynamics of pianistic cantabile, it is important to qualify more clearly here the three variables that constitute it, namely the hand, the sense of touch and the piano. One need to remember that ‘the hand’ in this connection does not denote merely the anatomical part between the wrist and the fingertips, which is ‘just an abstraction, a pencil line drawn by mapmakers’ (Wilson 1998: p. 8), but the entire biomechanical structure including the whole arm as well as the muscles of the neck and the chest that allows this part to function. To say, the hand should also be seen as being in continuous partnership with the brain, forming a reciprocal unity with it through a process of feed-forward/feed-back in engaging with the piano. With regard to the sense of touch, it does not only specify the cutaneous contact of the fingertips with the piano keys. As the sense of touch is phenomenologically integrated with bodily movement,21 pianistic touch should be conceptualised as embedded within the total kinaesthetic dynamics of the arm/hand gesture that initiates, sustains and transfers the muscular force to the piano strings via the keys and the hammers. As for the third variable in question, namely the instrument of the piano, it would be misleading, as far as its phenomenology is concerned, to think of it as a fixed, flat surface along which the hands change position: under the effortful movements of the pianistic hand, the piano displays a phenomenologically emergent dynamic topography as the individual keys, which respond with buoyancy and rebound, experientially merge into a continuously configurated, ever-changing surface.22 It is this relationship of mutual shaping - based on force/counterforce - between the expert pianistic hand and the dynamic piano surface that becomes the basis of a pianistic way of knowing music.

21 Scientific research indicates that in action, the brain treats the hand not as a separate body part but as continuous with the arm: experimentally, ‘in action (e.g., reaching and grasping) in contrast to passive perception (e.g., estimating the distance between two sensations on one’s skin) the felt differentiation between hand and arm across the wrist is reduced’ (de Vignemont et al. 2009, quoted in Gallagher 2013: p. 212).

22 ‘Most of the properties that we are said to perceive through touch would be imperceptible without a sense of bodily movement, and it is not simply “movement” that counts. The specific style of movement is important; different kinds of movement are associated with the perception of different properties … So touch is phenomenologically intertwined with a sense of bodily position and movement. Separating it from them would leave us with an impoverished abstraction from tactual experience, consisting of little more than base, nonlocalised sensation, perhaps with some degree of valence’ (Ratcliffe 2013: p. 137).

22 Phenomenologically, the piano does not exist as a musical instrument prior to its emergence in the kinaesthetic-affective consciousness of the pianist, who constructs its instrumental identity through embodied interactions with it. For a pianist, the piano is never a neutral ‘object’ but a place that enables various kinds of kinaesthetic/tactile/aural actions and shapes. In this sense, musical instruments do not have musical identities independently of the performers that interact with them.

The fleeting sensation I had of the bodily difference of the Arioso dolente from Beethoven’s Op. 110, which I noted earlier, should thus be understood to have emerged while weaving this kind of kinaesthetic-tactile-sonic tapestry.

As the observation and identification of any difference is always relational – an object, event, or phenomenon is different only in relation to other objects, events or phenomena – the particular embodied feel of the Arioso dolente as a somewhat awkward or even uncomfortable instance of cantabile playing soon prompted further, unforeseen research questions: would it be possible to identify, from the perspective of the pianist, a normative pianistic cantabile practice against which this music stands out as phenomenologically different?23 What might be the characteristics of such a normative cantabile practice? What is the nature of the connection between the singing voice and modern pianism? Since the notion of a ‘singing’ piano tone and touch has been a pervasive component of pedagogical discourses on modern pianism, a survey of this literature presented itself as a logical move in the research process. While the outcome of my survey, indicating that this highly valued aspect of artistic pianism has not been conceptualised in any clear or coherent manner in the pedagogical literature, may at first appear surprising to the reader, this state of affairs is not unpredictable: whereas both the artist and the artist-researcher are involved in artistic creation, it is the latter that is consistently concerned with persistent and systematic inquiry into the processes of art making. Artists do not as a matter of course theorise artistic phenomena.24

The discussions in the pedagogical literature concerning pianistic cantabile practice can be summarised under three headings: 1) the aural qualities of a singing piano tone; 2) the kinaesthetic-tactile images or sensations a pianist experiences when achieving cantabile; and 3) the physical and mental techniques required for cantabile performance.25 Accordingly, a singing piano tone is recognised by

21 I do not use the term ‘normative’ in its standard philosophical sense, i.e. relating to how things ought to be according to a value perspective. I use it rather to talk about a referential pianistic dynamics that has a more-or-less stable and identifiable kinaesthetic-tactile representation. In this sense, normative pianistic cantabile is not a more or less valuable practice in comparison to non-normative pianistic cantabile.

22 There have been some attempts to collapse the distinction between practice and theory by arguing that arts practitioners theorise in and through their practices (e.g. Melrose 2005). I do not find these attempts enlightening as they tend to conceal nominally an epistemological difference that nevertheless remains: while the expert pianist employs a complex know-how in cantabile practice, for example, this practical knowledge embedded within artistic pianism does not at the same time explain or communicate the nature and/or the principles of the practice. Note that my position does not deny that artistic practice can involve theoretical undertakings and underpinning, or that theorising can have practical components.

23 The summary I provide here concerning the terms, concepts, images and metaphors employed in pedagogical discourses on pianistic cantabile practice has been drawn from a survey of the following texts: Berman (2000), Brower (1911), Feinberg (2007), Johnstone (n.d.), Kochevitsky (1967), Kullak (1893), Levin-Kaya (1930), Lévinne (1972), Masson (1897), Matthey (1903), Neuhaus (1993), Sándor (1985), Schick (1982) and Thalberg (1853).
its 'intense', 'round', 'sonorous', 'fall', 'luscious', 'cushioned', 'long-lasting', 'carrying', 'clear', 'expressive' aural quality, 'coming from the depths of the keys'. When performing in a cantabile manner, pianists feel as if they are 'caressing', 'grasping', 'grabbing', 'kneading', 'growing into', 'merging with', 'sinking into', 'fusing with' the piano keys; they 'cling to the keys as to something soft, velvety or downy', 'knead the keys as if with silken fingers', 'shape the phrase as if moulding warm clay'; 'press the key as if grasping the hand of a friend with warmth, with feeling'. In order to learn the skill necessary for pianistic cantabile, the aspiring pianist is advised to: 'imagine the desired tone', 'mentally hear the tone before producing it', 'listen between the notes', 'have constant awareness of key resistance', 'sing the music', 'use arm weight', 'cover a large amount of key surface', 'develop suppleness, resilient, elastic joints and a loose wrist', 'develop perfect phrasing with lingering pressure instead of percussion', 'release the keys gently, avoiding sudden, angular attack', 'use flatter finger position', 'take hold of the key before its actual depression commences', 'use tangible expressive movements of the hand', and 'pour arm weight from one tone to the next'.

While these images and techniques put forward in the pedagogical literature provide generalised 'how-to' guidelines for aspiring pianists, they nevertheless fail to offer any means of differentiating between the various kinds of kinaesthetic-tactile qualities a pianist would experience in diverse musical contexts requiring a cantabile approach. For example, a 'round' sound that comes about as the pianist 'sinks into' the keys and 'covers a large amount of key surface' may be the result of very different kinaesthetic-tactile sensations, some accompanied by a feeling of ease and naturalness, and others by unease and awkwardness, depending on the physical gestures required by the particular musical context: an expert pianist would achieve the desired cantabile effect in sound through widely differing bodily sensations. It is not the case that each instance of cantabile-sounding piano music is related to similar muscular sensations in the consciousness of the pianist. In this sense, the guidelines provided in the pedagogical literature are too general to distinguish between physically natural, as opposed to unnatural, instances of pianistic singing.

24 In modernist discourses, the term 'natural' has been used to ascribe positive value to various cultural practices (including the musical practice of 'phrase-singing'), concealing their historical-cultural constructedness (Cook 2013, Chapter 6). I use 'natural' and 'unnatural' to capture a qualitative kinaesthetic proprioceptive difference in relation to body movements, without ascribing any aesthetic or cultural value to these terms. Both natural and unnatural body movements can acquire meaning in artistic contexts, without which they remain as potentials for artistic expression and do not have artistic value. As Yang (1984: p. 512) has written in reference to the physical basis of Chinese zither performance, 'Definitions of what is or is not "natural", in the kinaesthetic sense, are complex issues'; nevertheless, it is possible to identify certain bodily movements and gestures in relation to instrumental music performance that feel more comfortable, flowing – and easier – in comparison to others. Further research can explore if bodily movements and gestures that are experienced as 'unnatural' at the novice level become 'natural' with developing instrumental expertise.

The Role of the Musical Instrument

One of the reasons for this vagueness in the pedagogical literature is that the authors hardly ever mention specific examples from the piano repertoire when referring to cantabile practice. Consequently, the aural images and kinaesthetic-tactile sensations they allude to are not related, for the benefit of the aspiring pianist, to particular musical and bodily gestures. As I shall discuss in the next section, some of the bodily terms mentioned do indeed provide a glimpse of 'what it feels like to 'sing' on the piano; nevertheless, there is no substantial discussion of the physical nature of this artistic practice and how it might (or might not) be related to the embodied features of the singing voice. For instance, it is not acknowledged in the piano pedagogical literature that artistic singing – which all authors regard as the model for pianistic cantabile – is not an ordinary, everyday activity and that it has to be cultivated through a long and intense learning process similarly to acquiring expertise in playing other musical instruments. Humming a tune to oneself does not give access to the physical principles of artistic singing. Even if a pianist works from a directly embodied understanding of singing by actually studying it in practice, to translate this understanding into a cantabile delivery on the piano requires further specialist knowledge about the kinds of pianistic touch and gestures that are necessary to produce the desired tonal effects on this instrument. Pianistic cantabile is not a secondary artistic ability derived from another, primary area of artistic specialism, but an expert skill in its own right.

Normative Pianistic Cantabile

I already mentioned, in the introduction, that the processes of artistic research I narrate in this chapter have been emergent in nature. In this sense, the stages of research that followed the survey of the pedagogical literature were not part of any original research design: rather, appropriate methods suggested themselves in accordance with the needs of the investigation at specific junctures. As my quest for an explanation of the embodied qualitative difference of the Arioso dolente from Beethoven's Op. 110 remained unfulfilled at the end of the literature survey, I decided at that point to go down a methodological route involving practical enquiry. Hence, I started studying and comparing the embodied feel of a large number of passages from the piano literature where there is either an explicit cantabile indication or an implicit expectation of a singing performance. This required making fine sensory discriminations and judgments in relation to piano touch.

In hindsight, I cannot claim with certainty that this phenomenological enquiry would have been sufficient to formulate the basic principles of normative pianistic cantabile practice, had I not encountered, concurrently with my practical undertaking, some relevant scientific research on the human hand. Although I had an ongoing interest on the biomechanical and neurological elements of this fascinating anatomical structure, it was the unplanned simultaneity of practical enquiry and the acquisition of (unexpectedly) germane theoretical knowledge that prompted the conceptual integration of various observations I had made in relation
to pianistic cantabile, which until that point remained somewhat disconnected. One should never underestimate the role of serendipity in research, and there might be some truth in the claim that 'in the sciences of observation chance favours only prepared minds' (Pasteur quoted in Van Andel 1994: p. 634), open to receive the unexpected.

I attribute one of the turning points in the research process to a particular theory on handedness put forward by the French psychologist Yves Guiard, who has been studying human bimanual activities since the 1980s. Handedness appears to be a uniquely human phenomenon, 'rasking with speech and tool use as a distinctive behavioral trait of H. sapiens. We and we alone, as a species, exhibit strong preference for the use of the same hand - left or right - in a variety of manual tasks' (Wilson 1998: p. 150). Across ages and cultures, our manual performance asymmetry has been a source for the symbolic representation of various dualities such as 'divine-proflane, benign-sinister, clean-impure, quick-slow, strong-weak', the first term in each pair applying to the so-called 'dominant' or preferred hand (Wilson 1998: p. 148). Maintaining this folk-psychological view until recently, the traditional scientific explanation of handedness has conceptualised it in terms of dominance and non-dominance, and regarded skill as residing in the dominant hand. It was only in the 1980s that a 'number of investigators had begun looking more seriously at the possibility that handedness was a more complex phenomenon than anyone had ever imagined' (Wilson 1998: p. 157). Even then, the majority of research focused on unimanual tasks. Guiard's research (1987a, 1987b, 1988, 1990) challenged the traditional view by showing that conceptualising human manual asymmetry in terms of dominance cannot account for the complex motor coordination, timing, and controlled precision of the two hands in bimanual activities; instead, he argued, the two hands should be regarded as cooperating, complementary partners, each carrying out its specialised and equally important role.

The hypotheses that Guiard put forward with regard to the spatial and temporal relationship between the two hands in bimanual activities are consequential for understanding the embodied nature of pianistic cantabile. Accordingly, a basic principle that governs human bimanual activities is the frame-content relationship: typically, the 'non-dominant' hand delivers 'spatial' frames into which the activity of the [dominant] hand inserts 'contents' (Guiard 1987a: p. 493); in other words, the dominant hand moves in accordance with the dynamic reference frame set and confined by the other hand. In activities such as writing, sewing or peeling an apple, for example, the left hand (in right-handed people) constantly repositions the paper, cloth or the apple, so as to continuously re-configure, temporarily steady spatial states that guide and aid the movements of the right hand using the pen, needle or the knife. Another fundamental principle in bimanual activity concerns the timing of the frame-content relationship such that the non-dominant hand moves in supportive micro-anticipation of the movements of the dominant hand, by starting its stabilising, framing movement before the action of the dominant hand commences. Rephrasing this principle, Wilson has written: 'the left hand knows what the right hand is planning, and the right hand knows what the left hand just did (strokes in the original)' (1998: p. 160). Most significantly, in their coordinated work during bimanual activities, the two hands function as one unit: from their cooperative action emerges a superordinate hand.

The principles put forward by Guiard in relation to bimanual activities hold true for ordinary daily tasks as well as highly skilled ones, including artistic piano playing. When both hands are engaged in a certain task, the activity feels natural - and easy - if a particular kind of a spatial-temporal dynamic configuration unifies their movements. The embodied feel of playing a melody in a cantabile manner on the piano only with one hand is distinctly unnatural, when the other hand is not involved in the activity in order to provide bimanual support to the singing hand, which has to transfer the pressure from one key to the next by means of arm weight and control the key depth in order to achieve constancy of touch. It is not merely an oddity to gesture with the 'free' hand, as Gould often did, while only one hand is involved in playing in a cantabile style; it is rather a natural embodied impulse to facilitate achieving coordinated, flowing movements in the hand that is actively shaping the melody. While pianists can and do learn to suppress this impulse so that the free hand in such contexts remains still, the natural inclination towards coordinated bimanual movement remains. Consequently, the first hypothesis I propose in relation to pianistic cantabile practice is that normatively, singing on the piano involves both hands working together as a unit, as one hand delivers the melody and the other hand accompanies it ('the principle of the unity of the hands'): it is a misconception to think of normative cantabile practice on the piano as applying to a single melodic line, by analogy to the singing voice. Examples 9.1 and 9.2 show musical contexts that afford the practice of normative pianistic cantabile.

It is not sufficient, however, to define normative pianistic cantabile practice only by reference to the principle of the unity of the hands since each hand, while in complementary partnership with the other hand, also fulfils its specialised role with particular movement characteristics. Therefore, I propose two further hypotheses regarding these specialised roles, one referring to the accompanying hand and the other to the 'singing' one. Accordingly, the accompanying hand

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25 As an example of this practice, see Gould's performance of the Raisinio from the beginning of the finale of Beethoven's Op. 110 available online at: http://www.youtube.com/watch?v=KocCMxG5kAs. [Accessed July 2013.]

26 There is research indicating that humans typically display self-instrumentation in their movements. According to Clayton et al. (2005: p. 7) 'a gesture by one part of the body tends to constrain gestures by other parts of the body. For example, arm movements in walking could - in principle - be independent from leg movements, but in fact they are not. It feels much easier, in more harmonious, and less strenuous if the arms lock into the leg movements'. Further research might reveal connections between the principle of the unity of the hands I propose here and the phenomenon of self-instrumentation.

27 In the majority of cantabile passages from the classical piano literature, this is the left hand.
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Similarly in Example 9.2, showing the opening of the Adagio from Mozart’s Piano Concerto in A Major K. 488, the movement of the left hand unfolds in accordance with the principle of the continuous rhythmic movement of the accompanying hand. In terms of the dynamic relationship between the two hands, the embodied movements spanning the second beat of bar 2 and the first and second beats of bar 3 are especially typical of normative cantabile: here, the singing hand places itself into the unfolding spatial reference frame provided by the left hand after the latter supplies its initial rhythmic impulse, in keeping with one of the basic principles governing bimanual activities put forward by Guiard.

The reader should keep in mind that the two-phase rhythmic movement I describe in reference to Examples 9.1 and 9.2 is phenomenologically indivisible such that the musical ‘events’ that are notionally discrete are moments within a unified manual movement trajectory. Crucially, not only the sensation but also the tacit knowledge of the unity of this movement resides in the expert hand, which judges in advance, based on a knowledge of what is physically possible on the piano, and how, the extent of the spatio-temporal span to be unified through an initial rhythmic impulse. In this sense, the music-perceptual discriminations and judgments that a pianist makes in relation to a score are always connected to the manual perception (Radman 2013) of possible modes of actions on the keyboard.

A third hypothesis I wish to put forward in relation to normative pianistic cantabile practice concerns the movement of the melody-carrying or singing hand, which is most frequently the right hand in piano music. I have already alluded above to the kinaesthetic-tactile dynamics of the singing hand, referring to the transfer of pressure from one key to the next by means of arm weight and to the controlled consistency of key depth. One of the images mentioned in the pedagogical literature is particularly apt for capturing the feel of this embodied dynamics: this is the image of grasping, or grabbing the keys. In order to be able to achieve, comfortably and with ease, in a slow-to-moderate tempo, the transfer of pressure and constancy of touch across a number of keys, the singing hand assumes, before starting the cantabile delivery of a single-line melodic unit, a posture resembling the readiness of the hand for grasping an object: the main difference is that in this case the ‘object’ to be grasped and held is in a state of continual spatio-temporal emergence. In the words of pianist Josef Lhévinne, in cantabile playing, “as the finger touches the key-surface, it feels as though it were grasping the key, not striking or hitting it. There is a vast difference of sensation here” (1972: p. 303). While this aspect of pianism is totally neglected in research and also in folk-psychological notions of pianistic skill, which frequently mention the remarkable swiftness of the pianist’s fingers, pianistic grip is more significant than finger speed in separating the novice from the expert. In cantabile practice, the ability to ‘hold’ a melodic unit in one’s grip as it takes shape is a function

Example 9.1 Chopin, Nocturne Op. 9 No. 2 bars 1–2

Andante

in normative pianistic cantabile involves a regularly articulated two-phase movement, unified through the seamless transformation of a thesis to an arsis, or vice versa28 (‘the principle of the continuous rhythmic movement of the accompanying hand’). I regard this kind of continuous rhythmic movement of the accompanying hand as fulfilling the framing function that characterises bimanual activities, providing dynamic spatial configurations aiding the movements of the other hand. In Example 9.1, showing the beginning of Chopin’s Nocturne Op. 9 No. 2, each triplet figure in the left hand is physically (manually) unified through the initial impulse provided by the contracting arm muscles and descending arm weight in readiness for the ensuing rhythmic activity. Originating in an arsical purgative phase prior to the beginning of the sounding music, this initial impulse is transformed into its thesis as the hand makes contact with the keys for the first musical event; somewhere along the space-time of the triplet figuration, this thesis then gives way to another arsical impulse, which unfurls towards the next thetic phase, and so on. If they attend to them, pianists can discern within the unfolding manual movement trajectory the subtly alternating phases of muscular contraction and relaxation, particularly in the larger and more slowly moving musculature of the upper arm.

Example 9.2 Mozart, Piano Concerto in A major K. 488, II, bars 1–4

Adagio

28 Arsis and thesis from the Greek words for ‘raising’ and ‘lowering’ respectively. Originally, these terms referred to the raising and lowering of the foot in keeping time to the declamation of Greek verse. In modern practice, arsis became the established term for the weak beat, and thesis for the strong one. I use the terms to also signify the embodied patterns of tension-release that bodily rhythmic movements generate.

The majority of piano music requiring a cantabile performance has tempo indications in this range.
of artistic skill. The grasping hand in pianism connects not only the ending of one note and the beginning of the next one; more importantly, it joins together, manually and musically, the beginning of one note and the ending of a subsequent one that is not necessarily in immediate succession.

The notion of ‘holding’ the piano keys in the context of pianistic cantabile practice is not merely a metaphor; the kinaesthetic-tactile experiences of grasping an everyday object and the piano keys have commonalities, including the unitariness of the kinaesthetic-tactual sensation, the correspondence between the shape of the object and the shape of the hand as it gets ready to hold the object in accordance with the task, and the continual reshaping movements of the hand during prehension. In discussing the example of picking up a cup with one hand from above, with fingers spread around the rim, or picking up the cup to roll it back and forth between two hands, Ratcliffe (2013) notes that in each case, even though you see that your fingers are physically separate from each other and from the cup, and that they make contact with the object in different places, the touch is unitary; there is a unitary tactual perception of a cylindrical object, rather than ... phenomenologically separable touches, from which the presence of a cylindrical object is inferred (Ratcliffe 2013: p. 141). Similarly, during a normative cantabile delivery involving a single line melody in the singing hand, while the fingers act individually, pressing the keys in temporal succession and sensing not only the key surface but also the key-bed, the emerging melodic unit acquires a distinct embodied dynamic shape as a result of a unitary kinaesthetic-tactile sensation.

Hence, the third hypothesis I propose is that in normative pianistic cantabile practice the melody-carrying hand interacts with the piano keys as in grasping an object (‘the principle of overhand grip’).

An important implication of this hypothesis is that pianistic cantabile requires at least two successive tones, as the hand is not able to perform a grasping and holding task with only one finger. Kinaesthetically and gesturally, the hand gets ready to ‘sing’ only when there is a group of notes to be unified manually and musically. Even if only a single note is sounded, there will be

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30 There is empirical evidence that experienced pianists show better reproducibility and regularity in palm grip patterns in hands tasked unrelated to pianistic practice (Fernandes and de Barros 2012).

31 In the research literature on motor behaviour and control, typewriting and piano playing are mentioned as similar manual tasks (e.g. Goebi and Palmer 2008; Schmuckler and Bosman 1997). There is, however, no substantial similarity between the phenomenology of expert pianism and typewriting. One daily activity that may be a distant motor relative of pianistic cantabile, in terms of the kind of kinaesthetic-tactile dynamics it involves, is handwriting. It seems to me that there are certain similarities between the way the singing hand grasps the keys and shapes a phrase, and the way the writing hand holds the pen and shapes the letters: in each case, the arm-hand exerts a constantly changing yet precisely controlled pressure on the keys/key-bed and the pen/paper respectively to make shapes. Further research is needed to explore if handwriting, and indeed any other daily activity, displays similarities to pianistic cantabile practice.

an audible difference in the quality of the tone if the pianist plays, say, b1 as an individual tone, and the same individual tone by imagining it as initiating a melodic unit that moves to g2 – as in the opening of Chopin’s Nocturne Op. 9 No. 2. In the latter case, the hand will have already assumed, before playing the b1, a certain temporarily stable state, varying with the particular size and shape of each pianist’s hand, to cover the interval between the b1 and g2; getting kinaesthetically ready to ‘hold’ the melody as it unfolds. The grasping hand is always teleological.

Subjective Intricacies – L’istesso tempo di Arioso

Having formulated some hypotheses regarding normative cantabile practice on the modern piano, I was now at a point of arrival in the research process, where I could provide an explanation regarding the embodied feel of the Arioso dolente from Beethoven’s Op. 110 as follows: In Example 9.3, showing the first Arioso from the finale of the sonata, the left hand, in large measure, does not move in accordance with the principle of the continuous rhythmical movement of the accompanying hand. Kinaesthetically, there is frequently a feeling of rhythmic stasis – as in bars 2 and 3, for instance – such that a continuous transformation of an arsis to a thesis does not take place, and the accompanying hand does not flow naturally in its movements. Right hand motion is not composed in these bars relative to the left hand motion, which fails to create a dynamic frame in preparation for the movements of the singing hand. Furthermore, the operation of the principle of overhand grip becomes problematic in bar 6 and the first half of bar 7 because of the written-in slowing down of the emergence of the melodic object. In short, the music does not afford a context for the embodied practice of normative pianistic cantabile.

But, is there not something important missing in the above description? Based on the performance style they are familiar with, and their memory of live or recorded performances of the movement, readers will imagine the music in Example 9.3 in various tempos, but do these tempos correspond to the tempo image I am talking from in describing the movement quality of the two hands?

32 Leech-Wilkinson has recently argued that whoever makes assertions about a music represented by a score does so by reference to an imagined or remembered performance style: ‘Performance lies beneath all hearings (including all imaginings) of scores and thus all conceptions of composition (and analysis). How? Because as soon as we start to think about the relationships between notes we have to imagine those notes sounding. And as soon as we imagine music sounding we imagine it in a particular performance style, the performance style current around us’ (2012: paragraph 2.1): ‘Theorists, analysts, score readers, composers – none can work independently of performance styles they know or wish for’ (2012: paragraph 2.3).
Clearly, one would have to specify a tempo in order to ensure that the movement qualities discussed are communicated as accurately as possible. At this point, a flashback is called for as I need take my reader to a point in time earlier than the origin of the research process I have narrated so far, when – as I was beginning to learn and develop an interpretation of Beethoven’s Op. 110 – my expert knowledge of cantabile practice was non-conceptual and explorations about its nature unstructured.

There are various kinds of processes involved in developing a performance interpretation. Whether a musician’s approach is mainly analytical and/or intuitive serialist – or a mixture of these (Hallam 1995) – and whether one’s aesthetic goal is faithfulness to the composer’s intentions or not, interpreting by definition involves personal decision making. Depending on the repertoire in question, there may be decisions to be made about the kind of instrument and tuning to use, ornamentation, articulation, phrasing, fingerings, tempo, dynamics, meaning of expressive terms, form, and even duration of the performance; and the process may be influenced by habits and acquired historical-cultural knowledge as well as one’s personal aesthetic preferences and original insights. In the case of canonic pieces of music, such as Beethoven’s piano sonatas, the performance tradition, embodied in historical and contemporary recordings as well as present-day live performances, would also function as a cultural-aesthetic referential context that can guide the process of developing a performance interpretation.

From the earliest stages of my pianistic encounter with the finale of Beethoven’s Op. 110, one of the issues that I kept returning to as part of an evolving reflective process has been the interpretation of the very expression ‘arioso dolente’ itself. The dictionary meaning of each term is straightforward: respectively, they mean ‘like an aria, songlike, having a vocal quality’ and ‘mournful, lamenting, sorrowful, doleful, painful’. Namely one can arrive at the meaning of ‘arioso dolente’ by juxtaposing the individual meaning of each term as ‘like a’ mournful song’. But, how does the pianist perform this music as a ‘mournful song’? How does ‘dolente’ function as a performance indication? Treitler has written in reference to a similar term, *mesto* (mournful), that it refers to a musical *effect* with a long tradition – “a known and specifically musical quality” – and argued that “we should not look to the feelings we have on mourning a loss or to the expression on a bassist bond’s face to capture it [in performance]” (Treitler 2011: p. 66). According to Treitler, performers need to learn the referents of such terms in music, and having once learned them, they would be alerted by these words to experience their referents. In Treitler’s words, ‘such a state of alertness, or mind-set, corresponds to the

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25 This, of course, applies to the previous music examples I discussed. The reason I have not brought up this important issue until this point in this text is that its full implication for this research undertaking came clearer to me only at the stage that I narrate here, as I continued to contemplate the embodied feel of the *arioso dolente* of Op. 110 after having established an explanation of its phenomenological difference. With regard to Examples 9.1 and 9.2, the tempos I imagine are c. 43 and c. 32 for the dotted crotchets respectively.
Stimmung ... in which expressive marks like religioso place the performer, from which to deliver a corresponding performance' (p. 67).

The problem with Treitler’s argument is not that one cannot identify certain musical patterns or structures that have been consistently employed by various composers in relation to terms such as mesto, dolente or religioso, for example: this does not require much more than a pattern-matching and naming exercise. The problem rather is that it is not possible to specify any generic felt affective content for any given sounding musical pattern and for the expressive term that might correspond to it. Treitler’s perspective reinforces a long-standing and deeply rooted idea in western musical thought based on the assumption of a one-to-one correspondence between a musical quality and its expressive content (Dogantan-Dack 2014); it nevertheless fails to note that such content cannot be known except through the mediation of first-person feelings. The implication is that it is impossible to identify the ‘Stimmung’ that a given musical quality supposedly triggers in all performers alike either by itself or through its learned association with an expressive term such as ‘dolente’, determining in turn the timing and dynamics of its realisation in performance. Even if it can be shown that musicians agree most of the time about the felt affective-expressive content of certain musical patterns and structures – largely due to learned and shared cultural codes – this does not guarantee that they will be in agreement all the time. I have written elsewhere (Dogantan-Dack 2012) about the discrepancy between my own experience of the expressive content of the slow movement, Andante con moto, of Schubert’s Piano Trio in E flat major Op. 100, for example, and that of another musician, who associated it with images of snowy winter and sadness, with clear implications for tempo: for me, it is difficult, if not impossible to hear this movement as expressing ‘sadness’ because of my synaesthetic association of its key with a pleasant, light and airy colour, and there is no reason why such neurally hardened associations should not play a role in performance interpretation. Whichever method one may choose in interpreting an expressive performance indication – studying historical texts, listening to historical or contemporary recordings, imagining the sounding music to oneself, or observing a basin hound’s face – one ultimately needs to resort to one’s own affective experiences and representations, be they aural, visual, tactile, kinaesthetic or multi-modal, to give meaning to such terms in performance. Conving artistic results cannot come from outwardly following certain learned rules and prescriptions alone, but requires being true to one’s own experiences and convictions. To avoid misunderstanding, I do not preclude the possibility of a convincing artistic performance based on received notions and ideologies, internalised and accepted as the final word and truth by the performer – including

34 There is scientific evidence that movement-based qualities which humans experience – such as dynamic shape, intensity and rhythm – become affectively meaningful only when one responds to them through one’s own embodied first-person feelings (Damasio 1999, p. 343).

the ideology of Werkkreise, for example. My point is rather that convincing performance can have other bases, and be otherwise.

One does not need to have recourse to neurally hardwired associations between musical and affective qualities to feel strongly about a particular interpretation of a given term as a performance indication. A musician’s personal knowledge basis and subjective experiences in relation to a variety of cultural phenomena can generate compelling and personally valued associations that can influence the interpretation of the affective-expressive meaning of such terms. My understanding of the term ‘dolente’ is the result of a series of inter-artistic coherences triggered by my aesthetic experiences of various artworks. Needless to say, these aesthetic experiences themselves have complex causal histories that bring together various culturally learned and personally idiosyncratic responses. In the context of Beethoven’s Op. 110, the striking similarity between the melody of the Arioso dolente and the melody of the alto aria ‘Es ist vollbracht’ (‘It is accomplished’) from J.S. Bach’s St John Passion is well known (Matthews 1985, Mellors 1985, Reynolds 2003). While there is no evidence that Beethoven knew Bach’s St John Passion, the remarkable resemblance between the two melodies, coupled with the fact that while composing Op. 110 Beethoven was preoccupied with religious themes as he was also working on the Missa Solemnis, has led to a critical-interpretative tradition that – in reading the finale of the sonata as Passion music (e.g. Arrau in Horowitz 2011; Brendel 2001) – assigns to the arioso and the fugue the function of symbolically depicting the dualities of sickness/health, death/life, weakness/strength, suffering/promise of deliverance from earthly pain. Accordingly, the ‘suffering and mourning’ that is expressed in the arioso come to an end as the fugue asserts a progressively intensifying expression of health, strength and life: the presumed expressive content of the musical material of the fugue is thus regarded as essential to surmount what the arioso expresses.

Even before discovering in detail, as part of the research process, the historical context for the composition of Op. 110 and the musical allusion it inhere, I associated the kind of mourning or lamenting I hear in the Arioso dolente with the personal, private, quiet, reserved, poised, inwardly mourning – with acceptance – that I see in the face of Virgin Mary in Michelangelo’s sculpture Pietà (1499, in St Peter’s Basilica, Rome). I do not hear this music as a public, turbulent, outwardly expressive lamentation, as one might see in Eugene Delacroix’s painting titled
'Lamentation' (1857, in the Staatliche Kunsthalle Karlsruhe, Germany). There will be those who no doubt find other kinds of affective-expressive meanings in these artworks. To me, the term 'dolente', in relation to the finale of Beethoven's Op. 110, thus suggests a particular movement quality – one associated with a slowed down tempo, and a certain stasis – creating a tension in relation to the flowing quality the term 'arioso' brings to mind. While the 'arioso' indication inclines me to push the music forward, the 'dolente' marking prompts me to pull it back. The tempos indicated for the Ariosos dolente in various editions of Op. 110 – for example, the metronome marking of '63–69' for the dotted quaver (Hans von Bülow, c. 1875; Frederic Lamond, c. 1918), and '54–56' (Alfredo Casella 1920), as well as the tempi adopted by various pianists in recorded performances ranging between c. 46–56 for the dotted quaver (for example, Artur Schnabel 1932/2005; Charles Rosen 1997; Stephen Kovacevich 1993/2003), appear too fast to capture the particular kind of mourning-related movement quality I associate with this music. Perhaps the tempo implications of the terms 'arioso' and 'dolente' do not pose any conflict for other pianists, or if they do, they resolve this tension in favour of the 'arioso'. While it is easier to adopt a flowing tempo to bring out the 'arioso' character, it is a challenge to capture the 'dolente' quality I have described, which would at the same time convey the embodied unease of the act of making this passage sing on the piano. Artistic research contexts provide fertile aesthetic/ intellectual grounds that support taking up such challenges.

Given this particular kind of aesthetic inclination I had with regard to the term 'dolente', my physical exploration of the Ariosos dolente from the finale of Op. 110 has from the start been disposed towards a tempo much slower than those usually adopted in performance, that is, c. 30–32 for the dotted quaver. The explanation I gave at the beginning of this section regarding the embodied feel of the Ariosos dolente concerns pianistic movement qualities experienced at this tempo. This means that before my original research query about the physical feel of the Ariosos dolente was articulated, certain subjective judgments and artistic decisions had already been made. What is crucial here as far as the nature of artistic research is concerned is that had these judgments and decisions been otherwise – for example, had I imagined a faster tempo for the Ariosos dolente as I started learning the piece – the embodied effort, motor control and the kinesthetic-tactile sensations in playing it would have been totally different, and the question about its phenomenological distinction would not have arisen. This is because as one pushes the tempo, and it starts to approach the range indicated in performance editions and generally adopted by other pianists, phenomenologically the Ariosos dolente begins to take on the movement qualities associated with normative pianistic cantabile: at this tempo range, the slight emphasis the first chord of each triplet in the accompanying hand receives creates a regularly alternating arsis-thesis movement – a rhythmic continuity rather than stasis, supporting a comfortable delivery of the melody in the singing hand. Such contingency is at the heart of artistic research, continuously keeping the research and the researcher open to receive and engage with the singularities that emerge during the unfolding process. It is also an antidote against the authoritarian stances that have dominated the research literature on performance and analysis. As Borgdorf has noted (2010: p. 61), artistic research "reinforces the contingent perspectives and world disclosures which art imparts ... Its primary importance lies not in explicating the implicit or non-implicit knowledge encapsulated in art. It is more directed at a not-knowing, or a not-yet-knowing. It creates room for that which is unthought, that which is unexpected – the idea that all things [in art] could be different" (2010: p. 61).

If contingency is thus one of the core values identifying artistic research, the symbiotic relationship between practice and theory is another such value. During the stage following my formulation of the principles of normative pianistic cantabile practice, the theoretical knowledge and insights I gained on the biomechanics of bimanual tasks started to preoccupy me as a general experiential background in my practice, motivating further theoretical enquiry, from which further practice spiralled out. Prompted by the theoretical knowledge I acquired, the change in my awareness of what was happening in the two hands as they played music started to act as a magnifying glass, bringing to the fore details of the physical feel of the second Ariosos from the finale of Op. 110, which until that point had not been a primary focus of attention. Soon, a new set of questions arising from the second Ariosos became manifest, adding further complexity to the research process and problematising the performance of the movement. During this stage, the gradual emergence of an original understanding of the formal design of the movement, and my desire to realise this in performance, begot more artistic practice and transformed the entire undertaking into a full-blown artistic research project.

In the commentary accompanying his 1914 edition of Beethoven's Piano Sonata Op. 110, Schenker created an analytical fiction involving a fictional singer in relation to the two appearances of the Ariosos dolente in the finale. Arguing that the second Ariosos lapses into 'an even deeper weakness and depression', he wrote that in it we see the suffering bodied forth, as it were; we see clearly how the sufferer stammers, how he labors and breaks down, struggles up and sinks – in short how the tones nearly become lines and how the piece nearly becomes an actual likeness of misery' (in Stravinsky 1997: p. 115).

He continued that

Where before (i.e. in the first Ariosos) the breath had always extended long enough, here (in the second Ariosos) it is now shortened; yet because it lacks endurance, it suddenly breaks off and must begin a second time and repeats the tone that it cannot sustain, still expressly striving as if for clarity' (ibid.).

Schenker added that the left hand also contributed to the sense of increasing physical weakness: while in the first Ariosos it is relatively free of rhythmic
‘abnormalities’, in the second half of the second Arioso it ‘manifests an analogous disintegration in the form of suspensions and anticipations’ (ibid., p.115).

Analytical fictions or fantasies are, of course, harmless so long as they contribute to the plurality of meanings that any written symbolic representation entails (including representations of musical utterances, ideas or narratives), and are not put forward as the final authoritative critical interpretation, serving an authoritarian worldview. It is not very surprising that Schenker’s analytical fiction is not entirely harmless in this sense. It is, nevertheless, ironic that appearing as part of a commentary on his own performance edition of a piano sonata – and given Schenker’s well-regarded reputation as a pianist and piano pedagogue – it does not present insights derived from the performance of this music on the instrument of the piano.37

Compared to the first Arioso dolente, the second Arioso involves two modifications that are particularly significant in terms of embodied pianistic movements: one is the frequent rests in the melody, resulting in the frequent cessation of the contact of the right hand with the keyboard and thereby adding another dimension to the judgment the pianist needs to make in order to control the pressure to be applied to the keys in creating a melodic shape.38 The silences in the right hand also enable the left hand to emphasize the beginnings of the groups of tripletts without creating an impression of mechanicalness39 and to provide a spatio-temporal frame within which the two hands interlock in a graceful choreography. Due to this rhythmic change in the right hand, the second Arioso – even if played in the slower tempo I indicated – begins to take on a normative cantabile character as it unfolds, thus making it easier to achieve a ‘singing’ delivery of the melody. Contrary to Schenker’s analytical fiction, there is no ‘suffering bodied forth’ here in terms of the music’s embodied feel.

The second modification, which also prompts a normative cantabile delivery, concerns the patterns that begin to shift within the triplet units in the left hand: starting with the last triplet in bar 8 in Example 9.4, these become more regular from bar 14 onwards, bringing in a flowing, animated kinaesthetic quality to the music. Consequently, describing the expressive content of the second Arioso in terms of ‘weakness’, ‘suffering’, ‘misery’ or ‘depression’, in an unqualified manner as Schenker does, becomes problematic. If anything, the second Arioso is physically ‘healthier’ than the first (if case of movement implies ‘health’).
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The similitude Schenker finds between the movements of the body and the movements of the tones in the context of the Arisso dolente (Sennert 1997: p. 108) is based on an abstraction that does not take into account the movements of the most crucial body as far as the sounding music is concerned, namely the body of the pianist performing this music. While it is possible for the invocation of a vocal genre in piano music to invite images of a fictional singer, for Schenker this happens at the expense of the role and importance of the instrument of the piano and the embodied particulars of pianism.

Given these embodied properties of the second Arisso, a kinaesthetic narrative unfolding from constraint, unease and difficulty to 'sing' pianistically in the first Arisso towards release from constraint and ease of 'singing' in the second Arisso—began to emerge. As I delve further into the details of the second Arisso, the movement of thought oscillating between musical and musical meanings brought together this kinaesthetic narrative and a particular interpretation of the allusion to the aria "Es ist vollbracht" from Bach's St John Passion, suggesting an original understanding of one of the expressive terms Beethoven used to mark the onset of this section, namely 'ermattet'—translated as 'exhausted, weary'. Traditionally, the last words of Christ—the words that Bach set to music in this aria—are interpreted as signifying the fulfillment of the scriptures and the accomplishment of his mission, thereby representing an utterance of triumph rather than defeat.

Accordingly, it is possible to interpret the term 'ermattet' as suggesting the kind of exhaustion one would experience in attaining a desired end after an arduous path, rather than the kind of exhaustion associated with weakness, depression and misery. Given this potential interpretation of the term, it becomes possible—contrary to the standard critical interpretation—to imagine the musical material of the arisso to infer qualities that bring the 'suffering and mourning', which it also represents, to an end, without relying on the ensuing fugue to achieve this purpose. As far as artistic pianistic practice is concerned, the question then is: can one not perform the Finale of Beethoven's Op. 110 with this dual potential of the arisso in mind, emphasising in the second Arisso its self-sufficiency in material and form to "heal" or 'psychic wound' opened up earlier in the first Arisso? My recorded performance interpretation is one answer to this question.

The artistic research project I have narrated in this chapter has integrated embodied pianistic expertise into music analytical thought. Throughout the research process, the instrument of the modern piano has been at the centre of the enquiry, mediating the discursive and embodied elements I have brought into this undertaking by drawing from phenomenological, musicological, biomechanical, psychological and artistic investigations. The piano has acted as a tool for exploration and discovery, for affective involvement, expression, thought and creativity, rather than merely as a medium for communicating some meaning that exists prior to or independently of its affordances. In highlighting the cultural and personal "constructedness" of performance interpretations and finding new meanings in Beethoven's score that earlier keyboard instruments could not have afforded or inspired, I have provided an impetus for continuously 'opening up' the musical score, in contradistinction to the authoritarian views that insist on fixing, and thereby closing down, its performative meanings. In extending what is thinkable in relation to the performance interpretation of canonical pieces of music and introducing interpretative alternatives, I hope to have revealed uncharted research grounds that are not accessible without the questions, methods and paradigms of the artist-researcher. The time is right for musicology, which has taken significant strides in music performance research over the last decade, to embrace the complexities—and challenges—of this emerging method and its practitioners.

References


The role of the Musical Instrument. 201
Creating New Music for a Redesigned Instrument

Christopher Redgate

Chapter 10

The New Music for a New Instrument project funded by the Arts and Humanities Research Council (AHRC) – an offshoot of the 21st Century Oboe project also funded by the AHRC (Redgate 2009) – involves me in collaborative activity with five composers. I have collaborated with composers for many years, but this project is unique in that the new oboe differs significantly from the standard instrument, having had a number of areas of its key-work redesigned; it is, therefore, an instrument with a great deal of unexplored territory. The new instrument – the Howarth-Redge Oboe – was built in 2010–11 by Howarth of London, who played a very active role in its development. The key-work was redesigned in order to address specific problems that were highlighted by some of the most demanding music written recently.1 In these works, the composers have already imagined the sound world of the instrument by exploring technical extremes, using recent developments in sonic resources, and by articulating alternative ways in which the instrument can be used (Redgate 2007). Many of these works sit at the very edge of what is playable, but their extreme technical demands should not be viewed as compositional misjudgements. Often written in collaboration with me, they are experimental and visionary works employing extreme virtuosity and new sonic resources as part of their compositional aesthetic.

In the 21st Century Oboe project, my intention was to expand the oboe’s potential, as well as addressing performance issues in the current repertoire. Three areas of development formed the core of the research: the altissimo range, multiphonics and microtonal potential. This chapter discusses both my own preliminary research and the research generated through some of the collaborations with composers. The work on the new oboe reflects, and is a direct consequence

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1 Over the last 50 years the sonic potential of the oboe has expanded significantly. New sounds and techniques have been developed, and there has been a considerable rise in the number of virtuoso solo performers. The complexity of many of these developments is such that a composer wishing to employ them in a work needs to spend time with the performer for whom the work is being written.

2 See, for example, the oboe music of Michael Finnissy, Brian Ferneyhough, Roger Redgate, Paul Archbold, David Gorton and Richard Barrett. This music has for many years formed the core of my repertoire.