I

[1.1] It is still generally assumed that musical meaning is encoded in works by composers. I say “still” because there has been a lot of research, and a fair number of publications over the past two decades, that raise doubts about that easy assumption, yet none of it seems to have made much difference to the way scores are taught, analyzed, or discussed. Studies of specific instances of musical affect frequently treat the composer as if s/he were the principal agent of meaning. “Schubert lingers affectively on this glimpse of bucolic happiness, though without slackening the pace of the song” (Kramer 1998, 129).

“Beethoven hurls forth the P⁰ module, Allegro vivace, in a set of three impetuous, downward-cast precipitations, measures 1–8” (Hepokoski 2010, 11). Clearly the composer, in this idealized world in which musicologists and music theorists often imagine music, is also already the performer. The writer tells us how the piece should sound—“should” because the conception is attributed to the composer as performer. However far we may think we have come from the days when composers’ intentions drove critical commentary, the model in which performance, at its best, realizes composers’ conceptions specified in scores (Figure 1a) seems remarkably resilient, a meme that happily reproduces in the minds of successive generations of teachers, students and listeners.

[1.2] Ironically, performers are perhaps the most passionate advocates of this idealistic view. One might expect them to be only too happy to take more credit for their own creative contribution. But in fact the psychological advantages of being able to justify their choices by attributing them to the composer—treating the score as divine law (soli Deo gloria)—seem far to
our damage that recordings are going to—must—do to existing notions of the nature of musical compositions. For what we now see, beyond any question, is that while the notes may remain the same, the music made from them changes: over long periods of time it changes more than even our most progressive current thinking about compositions and their contexts encourages us to suppose. (3)

[1.3] While performances were imagined as varying enjoyably within a tightly constrained environment of possibilities, departures from which we could recognize as incompetent or willful, this view made a certain amount of sense. As long as everyone, at any one place and time, seemed to agree on the character of compositions, and on the most effective and appropriate means of expressing those as sound, there was little to argue about, save questions of technical competence and taste. Only the elderly could recall that performances had once behaved very differently. (4) For over a century now, (5) however, the virus of recordings has been reproducing quietly in the background, worming its way into our musical lives by apparently bringing innumerable benefits, economic and artistic, which far outweigh minor local damage (a declining willingness to read scores, for example). Only now, when there are so many recordings that a long past of performance practice has been realistically exposed to us for the first time, are we faced with the real damage that recordings are going to—must—do to existing notions of the nature of musical compositions. For what we now see, beyond any question, is that while the notes may remain the same, the music made from them changes: over long periods of time it changes more than even our most progressive current thinking about compositions and their contexts encourages us to suppose. (6)

[1.4] Perhaps we should have been alerted to this slow accumulation of radical change by observing, as we have for decades past in historiographical research, the very different ways in which people wrote about music in the past. It is clear now that intellectual responses to music have changed much, but we seem not to have wondered how that might happen irrespective of the sound of music. When Hofmann, Marx, Berlioz, Schumann and Wagner were writing about Beethoven, were they really hearing the same musical sounds, or hearing musical sounds in the same way, still less hearing them as Schenker, Adorno, Kerman, or McClary were variously to hear them, as ways of playing Beethoven changed significantly for each of their generations? It becomes far easier to understand the development of response to music once we appreciate the likelihood that performance style has been changing slowly but surely all the time. (7)

[1.5] We need to develop a much better understanding of how performance style and commentary change in relation to each other and, more importantly, in relation to other kinds of change in taste and thought, cultural stimulus and response. To put it another way, we need to shift the Adorno question—how musical material represents social problems (perhaps now social relationships)—from the score to the performance. Work on that has barely begun. Even so, it may not be too soon to begin to ask what the extent of change we can already hear, over the past 115 years, implies for our notions of the nature of musical works, by which I mean object-like formations having meaning-like qualities that survive substantially intact, over time, inherent in the relations between their notes. Can that notion, already so disputed, (8) survive a demonstration that radically different performance styles can generate radically different musical meanings from the same set of notes?

[1.6] What is already apparent is that when thinking about music changes significantly it is often performance that leads the way, with commentary following on some years later. I have tried previously to show how, in both Schubert and Boulez performance, radical changes in the sound of scores, leading to a different set of impressions for listeners, were followed decades later by changes in the way those scores were written about (Leech-Wilkinson 2009b). In the Schubert case the Second World War—perhaps not coincidentally—marks a watershed between a naïve lyricist whose songs faithfully depict the stories told in their texts and a troubled man with dark longings whose music departs far more than the texts seem to say. Here Dietrich Fischer-Dieskau was a key figure whose recordings presented layers of meaning unknown to his predecessors, which writers, after many years of assimilation, began to explore. The Boulez case is more complex, for his development as a
composer and a conductor are intertwined, both moving away from pointillism to lyricism: it remains to be shown, but seems distinctly possible, that Boulez the performer led the way. A similar case to these two could very possibly be made for many other composers and repertoires. Consider, for example, the reception of French Baroque music before and after Les Arts Florissants and their successors; Machaut before and after Gothic Voices; Mahler before and after Bernstein and Haitink; Bach before and after Harnoncourt. These are not the same composers as before.

[1.7] It follows that much of what is said about pieces is actually about performances of pieces: manners of performance have become absorbed into the scholarly imagination of scores. One does not need recordings for this to happen: scholars of music absorb from their performance surroundings ways of understanding the nature of compositions and of their composers; presumably they always have (Figure 2).

[1.8] It may follow that there is something to be learned, from ways of commenting on music in the past, about the way it was performed there and then; but to make that link will be even more challenging than seeing it at work in recorded times, and we are still a long way from that. Performers generally read less about music than writers hear of it, but while that may be another reason why performers lead the way, we might be wise now to reconsider the extent to which scores tell us anything at all about what is inherent to a particular composition beyond the approximate pitches and durations that its composer was able to abstract from what s/he imagined.

II

[2.1] Why does the evidence for changing performance style force us to go so far, questioning our ability to know the intrinsic nature of a composition? The reason is alarmingly clear. 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 style, the performance style current around us, more particularly, I suggest, the style current around us when our ideas about what is ideally musical became fully formed, which for many musicians will be in their twenties. (10)

[2.2] We may not be very good at imagining sound, in which case our thinking about the relationships between notes may be compromised and we may fall back on the vague sense of pitch that (one might hypothesize) comes from those neural networks that process pitch independent of timbre (Peretz and Zatorre 2005). Experimental studies of music imagining or “audiation” are at an early stage, but a shared finding is that imagining music engages, in experienced musicians, neural networks also involved in performance (Brodsky et al. 2008; Langheim et al. 2002), hardly a surprising finding but one that emphasizes the strong link between imagining music and real music-making. While in imagining scores it is possible to stretch out or compress passages that engage our attention to differing extents, this kind of selective focus, while useful for analytical purposes, has limited ecological value except in so far as rubato on a much narrower scale can be applied to produce expressive performance. The better we are at imagining sound as performed, the more realistic will be our judgments about the functional and meaningful relationships between notes. Many score readers are very good indeed (think of the aural imagination acquired by an experienced conductor).

[2.3] But in any case, whether one “hears” lifelike sounds or neutral tones or something in between, the way one strings them together has no way of being independent of one’s everyday experience of musical continuities. When notes are imagined a familiar performance style has to be drawn upon to make musical sense of them, invariably, one would suppose, the style with which one is most comfortable in the concert hall and on record. (11) Inevitably, then, how people imagine music changes over time. Theorists, analysts, score readers, composers—none can work independently of performance styles they know or wish for.

III

[3.1] How does this relate to the standard assumption among writers on music that compositions have expressive properties inherent in the relationships between their notes? With all our upbringing stressing that this is so, it will seem only natural to
agree with Michael Spitzer that “one may surely concede that musical materials and processes—perhaps even when they are disposed in a “work”—can have emotional properties in themselves” (Spitzer 2010, 2). But how, and to what extent? Gabrielsson and Lindström (2010) review over 100 studies that relate musical materials and expressive response. Most involve responding to human performances, so the test materials are not unmediated by performance expression; but the enormous weight of evidence that different styles of musical materials trigger different expressive associations and responses leaves little doubt that relationships between notes do some of the expressive work. Some of the findings concern cross-cultural tests in which members of one culture were able to discern something of the intended expression in music of another (Fritz et al. 2009). We can add to this the evidence of lullabies, which have musical features in common across many world cultures (Unyk et al. 1992; Trehub et al. 1993). But there too performance style is a major contributing factor: lullabies share not just “compositional” features (higher average pitch than in most songs, melodic simplicity and repetitiveness, fewer changes in pitch direction, more descending intervals) but also pitch-glides (portamento) and stronger lower harmonics in their singing (Trehub et al. 1997; Leech-Wilkinson 2006).

[3.2] Thus, wherever we look, performance style seems to be playing a significant role in musical communication. Gabrielsson and Lindström find that across the studies they surveyed the “most clear-cut” effects of emotional expression come through “effects of tempo/speed, intensity/loudness, and timbre/spectrum,” all matters in which performance crucially determines effect (Gabrielsson and Lindström 2010, 392–93). “Results regarding pitch seem more ambiguous”: the effect of pitches and harmonies seem to be easily inflected by tempo and loudness. Moreover experiments by several groups have been highly successful in showing that different manners of performance of the same musical material can trigger very different (and accurate) assessments by listeners of the intended emotional expression (Juslin and Timmers 2010). How the score is played makes a very great difference to what it means.  

[3.3] If we are less aware of this in performances of the standard repertoire it is probably because performers do not on the whole attempt to depart from traditional readings of the emotional implications of the score. The reasons for this are likely to be at least as much cultural and economic as anything inherent in scores. There are strong traditions in the performing of particular scores, it is assumed that these represent the composer’s intentions which are believed to be of overriding importance, and thus there is a strong moral imperative not to perform scores non-traditionally. Small adjustments to norms are sought after by young players seeking to be noticed, but anything obvious is counterproductive: performers who dared to offer a radically different view would be slapped down by performance police (teachers, critics, bloggers) and spurned by potential employers (agents, conductors, ensembles, venue managers, record and radio producers). Where is the incentive to innovate when maintaining traditions is the very focus of everyone’s professional engagement with music?

[3.4] But that tells us nothing at all about what is possible. Nor, indeed, about what really happened in the past. We know roughly how Bach’s “Crucifixus” is meant to sound—or so we think. But honestly we do not. Nothing makes this clearer than the gulf between early twentieth-century treatises and recordings by their authors, for example Lilli Lehmann’s (1902), Leopold Auer’s (1921), or Carl Flesch’s (1924). Once we can hear the manner of performance a treatise attempts to describe it becomes obvious that even highly detailed teaching texts (and these are much more detailed than their eighteenth-century counterparts) come nowhere near specifying a performance style: nothing Lehmann tells us in How to Sing, or Auer in Violin Playing as I Teach It, prepares us for the (by modern standards) extraordinary sounds they make on disc. This underlines the impossibility of arriving, from reading texts, even from playing the instruments, at anything remotely like Bach’s performance stylistic world, however much students of “historical” (i.e., imagined, pre-recording) performance practice may assert the opposite. But we live within a tradition of performing the “Crucifixus” a particular way, and, whatever the status they allow historical evidence, it is hard to imagine a circumstance in which performers today would feel able to confound an audience’s expectations of such a sacred text by making it sound radically different. So here, as in the vast majority of the classical canon, we are simply not being given a chance to find out how differently notes could communicate meanings to us. Beyond the hints offered by early recordings, we do not know what is possible. And so long as we do not know we (scholars) should be much more wary of making assumptions about what scores mean. Of course I have taken an emotive example. But how much truer must this be of music without a regulatory text, for example a fugue or a sonata movement?

[3.5] Performance can change the character, even the nature, of a score to a much greater extent that we allow. How much,
then, do the notes themselves contribute? In principle there is a simple way to test the extent to which the expressive content of scores (unmediated by performance) can be identified; that is to play them in a plain MIDI encoding without variation in pitch, loudness, timbre, or timing. But even here there are several contaminating factors. It is unavoidable to choose a playback speed, which can make a big difference to one's assumptions about musical meaning, so several speeds would need to be tried, including speeds outside current norms. Participants would be likely to bring a sense of expressivity to scores they know; hearing the MIDI as if it were an expressive performance, so an unknown score would be a better choice. Even so, knowledge of current performance practice in similar scores is likely to infect responses. You would need a lot of participants in order to assess the expressive character(s) of the piece with some confidence in the findings. In designing the experiment you would need to choose between forced choice and open responses, the latter preferable but harder to analyze. What emerged might, despite these qualifications, be very interesting. It would inevitably be influenced by the current performance tradition of similar scores, so there is no escaping performance style entirely. But it would be a better test than none. A sensible hypothesis, since it accords with all assumptions to date, would be that the pitch and duration information in the score does afford a constrained range of moods, emotions or associations. But the findings are far from guaranteed.

[3.6] In fact, tests along somewhat similar lines have been carried out by several groups of researchers. Vieillard et al. (2008) came closest in using fifty-six especially composed fragments intended to represent specific emotions and to “convey emotions by virtue of their musical structure and not their musical expressivity” (724). They were played to fifty-nine students, thirty-two of whom had no musical training, via a MIDI sequencer set to piano sound and without any variation in loudness or tempo. A large proportion of participants had no difficulty in distinguishing and recognizing the emotions represented. Although they did not try an inexpressive control, Bresin and Friberg (1999), examining the other side of the coin, showed that listeners were very successful at recognizing six different emotional states modeled by different (synthesized) performances of the same (contrasting) melodies (see also Bresin and Friberg 2000; Juslin 1997). We can draw two useful, if provisional conclusions from these studies; first that compositional structure is indeed capable of conveying specific emotional states without performance expression; and secondly that, nonetheless, if performers were allowed to play the same score in very different ways, listeners would find that score taking on very different meanings.

[3.7] Webern is a rather obvious but still challenging example, his compositional structures apparently well understood now after many decades of increasingly sophisticated attention, yet having a performance tradition that has changed so much as to suggest radically different music emerging from the same scores. As Miriam Quick has most recently and comprehensively shown, musicians and critics from the second Viennese circle (Reich, Steuermann, Searle, Stadlen, Kolisch, Adorno) were shocked by the extent to which the avant-garde misread Webern’s scores by attempting to respond to the nature of his serialism in their performances. Leibowitz’s and Stadlen’s recordings show how differently Webern’s music must have sounded when young, how much more in keeping with the emotional writer recently contextualized by Brown (2011). Since the early “avant-garde” recordings of Craft and Boulez the sound of Webern has changed again, not least in their own re-recordings (Quick 2010, esp. pp. 75–82). Who is Webern?

[3.8] Performances can show different musical structures in the same score, as Daniel Barolsky (2005, 2008) has shown in analyzing performances of Chopin. A more historically challenging example, in the sense that we are dealing with the composer’s own performances, comes from Grieg. In his online study of Grieg’s playing, which accompanies his re-creation and extension of Grieg’s recordings on CD, Sigurd Slåttebrekk (with Tony Harrison, 2011) discusses and illustrates instances in which the notorious four-squaredness of Grieg’s paper musical structures dissolves in Grieg’s performances, revealing Grieg as a musician for whom ambiguity and asymmetry were aesthetic priorities. Clearly his compositions have not been correctly understood using modern assumptions about how notes become sound. In these cases analytical facts derived from the score’s patterning are not facts about the music: the music exists in our response to what Grieg played, and our response is probably (given our period- and educational-subservience to score patterning) a lot more patterned than Grieg’s was. So even here, with the sounds surviving, Grieg’s solution is still only partially available to us. The whole Slåttebrekk/Harrison website, with its detailed analyses of Grieg’s playing and numerous sound examples, as well as the CD it supports, is highly interesting and revealing on this whole set of questions.

[3.9] In all these cases we have a great deal to learn from performances about the nature of the score, its character as
indicated by the associations performances trigger, and through them the meanings it evokes; and about alternative approaches to its analysis. In a previous article (Leech-Wilkinson 2007) I have compared various performances of Schubert’s “Die junge Nonne” which, through performance cues alone, seem to present the young nun as, among other things, 1) the passionately convinced bride of Christ depicted in the text (Arleen Auger, recorded 1990), 2) fearful of what faces her (Sophie Braslau, rec. 1928; Schwarzkopf (1952) is a still stronger example), and 3) on her death-bed (Lula Mysz-Gmeiner, rec. 1928). Whether one accepts those particular readings, or prefers other images to form from these sounds, few will disagree that the very different manners of performance must convey radically different states of mind. Here, then, is a score whose meaning has been laid wide open by a century of recorded performances.

Even well-known scores that appear to have widely-recognized meanings are changing all the time, not simply as general performance style changes but in their characterization, leading to a change in their perceived nature. An example in progress is Samuel Barber’s Adagio for Strings, which has turned into a prolonged cry of national mourning. But that is neither how it sounded, nor how it was characterized by commentators, when it was new. (16) Desmond Shawe-Taylor, in a BBC radio review of the first commercial recording (Toscanini conducting the NBC Symphony Orchestra, HMV DB 6180, mat. 2A 073221), broadcast on 30 December 1945, (17) said:

Barber is a composer whose style has a charming, serious simplicity of its own, and I believe that many people could feel much attracted by this piece of his if they were to hear it often.

And W. R. Anderson in The Gramophone used the same adjective in his review (February of the same year):

It is shapely, well-knit music, conservative in idiom, expressive, dignified . . . There is a unity and good seriousness in Barber . . .

No hint of tragedy nor even sadness. When you compare this first disc recording, and the recording of the first performance, now reissued, (18) with any from the last few years the piece is very different. What, then, is the expressive content of this score?

Other scores, including many with large performing traditions, show a much narrower range of interpretations over time. Schubert’s “Erlkönig” is an interesting example: a piece that rarely fails to make a powerful impression but one whose text seems to leave less than one might think to the imagination, judging by the stability of the performing tradition. Similarly stable traditions surround a great many canonical Classical scores. But what does that mean? That the scores are inherently less amenable to performer creativity? That in the case of songs the texts constrain performers? Or that for a variety of reasons, but no doubt principally fear of audience disapproval, performers have simply not thought it advantageous to experiment? (19)

It is astonishing how few have dared do so. Glenn Gould is the inevitable example, inevitable because there is no one in modern times who has departed so far from the norm and has still been able to make a living from performing and recording. Yet at the start of the recorded era there were elderly musicians, survivors of an earlier tradition, who treated scores in fundamentally different ways from our own. Nicholas Cook (2011) has recently shown how Eugen d’Albert’s playing, particularly admired by Schenker (of which more in a moment), privileged the unexpected over the structural; indeed, almost all the earliest recorded musicians privileged irregularity in ways that we would condemn in a modern performer as willful, mannered, and self-indulgent, even though, as for example in the case of Alfred Cortot, their thinking about performance might be rooted in an insistent concern for the composer’s context and intentions (Thieffry 1937, 16–20). These performers seem to share our essential values, placing the composer, and the notion of a work having an inherent character, center-stage, and yet to come to completely different conclusions about what that means for performance.

Historically Informed Performance is unique as a generic example of radical difference in modern performance, yet belongs rigidly within the modernist mental world. While it recognizes that performance practices changed, and that music sounded and felt different in the past, its solution is to get back to it and tie it permanently to the score, in other words to
outlaw change in interpretation and meaning. If anything is clear from the recent history of recorded performance it is that HIP has changed a great deal, and does not know what it thinks it knows about earlier performance styles. Or if it does, then somehow, and without anyone commenting on it at the time, performance style underwent a revolution somewhere between Robert Schumann (whom HIP thinks it can now deal with, moving coherently on from its Classicized Beethoven) and the pupils of Clara Schumann (whom we know from records and who sound inconceivably different). In any case, contrary to the claim that pieces work best in their “original” performance style (the truth of which we can test only by listening to recordings of twentieth-century scores), recordings show us that they work in an amazing range of performance styles, which again strongly suggests that their notes limit the possible meanings far less than we have supposed.

[3.14] It seems sensible to conclude that the main reason to suppose that a score suggests its performance is the broad agreement among most performers as to how it (broadly) should go. Yet tradition plays such a large part in the teaching and economics of performance that we are hardly in a position to claim, on this basis, that pieces ask to be played in particular ways. All we can say is that many pieces over the past 115 years have remained recognizably the same expressive structures, even though many aspects of their local performance style have changed. It is hard therefore to say what is the expressive potential of a score. It remains to be seen.

IV

[4.1] What kinds of rethinking would this conclusion require of music theory? Much has already been written on what follows for theorists (both music- and critical-) from taking performance seriously (Cook 2001a, 2001b, and 2003). An important strand in my argument here is that the extent of performance style change, startlingly obvious when one takes the evidence of recordings seriously, raises major questions about what theory theorizes. To put it very simply, what a piece of music is and what it means depend on when and where it is made by performers and experienced by listeners (as Dusman 1994, 131, began to suggest). Performance, then, is not simply a reproduction, a performance of something, but a process, experienced in a particular cultural context, created by performers (using the notation) and mentally constructed (uniquely and temporarily) by each listener. Meaning is generated from moment to moment during performances, and traces of meaning remain in the memory of the listener (or score reader), inflecting their sense of the nature of the piece. The piece (which as a term may, in its insubstantiality, be preferable to the over-concrete “work”) is imagined as being represented in the score but, insofar as it exists at all, is in fact constructed by thinking about what might lie behind remembered or (currently) conceivable performances. The piece, in a further delusion, gets mapped onto the composition, the musical conception that was composed, to which in fact we have no access but which we can best think of as the (or a) performance imagined by the composer. In this typology it is the piece that is the subject of analytical and critical study, the composition that is the focus of historical musicology. The whole process is modulated at each and every step by that step’s own period performance style.

[4.2] Cook (2007), by reading Schenker’s analytical writings in the context of his wider thought, shows how theory texts, like scores, are also subject to changing style and consequently perceived meaning. When conceived and notated, the classic writings in which so much of our own theory is grounded did not generate the same meanings, the same qualitative experience of ideas, as they do now. In other words, the lessons of performance style change are highly pertinent to music theory (Cook 2007, 307). Likewise, the failure of HIP to arrive at historically correct performances once recorded evidence becomes available (witness Norrington’s Elgar, and (again) the pupils of Clara Schumann) only underlines the futility of supposing that HIT could arrive at anything like a historically correct reading of a theory text. (29) But it may be premature to rule out the possibility of fruitful studies of the relationship between performance and theory at particular places and times: we may not know what they meant, but if these two modes of musicking are related (as seems possible, perhaps probable) there might be links to be found even in our misunderstandings of them. But here too there is evidence against.

[4.3] Cook (2011) has discussed the apparent discontinuity between Schenker’s analyses and his preferred performances, pointing out that Schenker continued to speak up for the d’Albert/Joachim rhetorical styles of performance, privileging irregularities in the musical surface, while analyzing scores exclusively in terms of underlying structure. But did they really seem incompatible for Schenker? Must we believe that such a perceptive musician should have said one thing about music...
but preferred when experiencing the sound of it to feel another?

[4.4] This is possible. It is curious that Schenker, like Adorno, failed to complete his projected book on performance. In both thinkers there appears this same opposition between their theory and their taste in performance style, in Adorno’s case evident throughout his notes “towards a theory of musical reproduction” just as much as it is throughout Schenker’s (Adorno 2006). Both men were formalists in theory, yet in practice both strongly preferred the old rhetorical, vitalist style of performance, a style evolved to respond to content rather than form. It may be that neither was able to reconcile these conflicting views and neither was able to construct a coherent book as a consequence. Indeed, with Schenkerian analysis (like so much music theory) depending significantly on how one hears the notes under discussion, any mismatch of experience and analytical belief is likely to create insuperable problems when one attempts an overarching view of their proper relationship.

[4.5] Naturally this does not prevent either writer from offering detailed, often persuasive advice on the performance of specific passages. All that that requires is the ability to draw from one’s preferred performance style, and one’s own sense of what is musical, a means of reflecting the function one perceives for particular moments in the score. It does not require a theory of the relationship between structure and expression, nor, in the case of Adorno if not Schenker, of the relationship of structure and expression to their cultural and political context(s). It is only when thinking more deeply about what drives one’s theory and one’s experience that the situation becomes problematic. For Schenker that larger difficulty may have lain in reconciling his personal tastes in performance style, which focused on local features above all, with his analytical emphasis on long-term structure: only one of these attitudes could continue his notion of the true tradition. (21) For Adorno, it perhaps lay in reconciling his taste for intensely expressive performance with a view of music as driven by forces far beyond the subjective concerns of the individual. For each writer, both so sure of their theory and of their own musical responses, the difficulty of making a coherent argument out of their research notes may have been baffling.

[4.6] Yet in a sense we all share their experience, and like them, share it without seeming to see the difficulty. Perhaps it is for exactly this reason that music theory and musicology have traditionally found performance so hard to handle. Failing to recognize the large extent to which “the music” is formed only in the performance, and in listeners’ responses to what performers do, has been a fundamental error preventing much about music’s identity and operation from being theoretically comprehensible.

[4.7] Given that theory is so independent of performance and of the experience of performance, it is possible that these two modes of communication have not maintained a consistent relationship over time: what theory implied for performance, or performance for theory, may seem to differ over time; which might explain the incompatibility we find between Schenker’s performance tastes and his writings on music (and Adorno’s). We cannot know yet whether this is so because it is not a situation that became conceivable for study until the evidence of performance style change (in both modes of musicking) forced itself upon us, in other words until we had had recordings for a long time and had got around to thinking about them. There will undoubtedly be many more issues of equal difficulty to face. What is clear is that there is a complex of questions now opening up that need to be studied intensely and that, in the process, are likely to alter our beliefs about the nature of what we are studying when we study music; for however you look at it, style change effects everything: thought, analysis, writing, performance. (22)

[4.8] A better-known but ultimately related problem for music theory, that grows more serious as more evidence accumulates, is the increasing doubt that long-range musical structure is perceptible. As Gabrielsson and Lindström report (Gabrielsson and Lindström 2010, 383),

Konečný and his co-workers . . . demonstrated that changing the order of movements in Beethoven sonatas and string quartets, randomizing the order of variations in Bach’s Goldberg Variations, or rearranging the order of different parts in sonata form as in the first movement of Mozart’s Symphony in G minor K. 550, had little or no effects on university students’ ratings on various hedonic (e.g., beautiful, pleasing) or emotion-related (e.g., exciting, emotional) scales. (23)

Tillman and Bigand (1996) chunked three pieces by Bach, Mozart, and Schoenberg into (musically adequate) segments of about six seconds, and then played these either in original or in backward order to university
students, who rated them on emotion-related scales. There were significant differences among the pieces in all scales but only two significant differences between the two versions (original vs. backward) of each piece. They concluded that for these subjects, musical expressiveness was mainly influenced by local structures within the chunks, not by global musical structure.

[4.9] Cook (1987) recomposed the endings of six significant piano compositions by canonical composers and found that university music students’ preference for the modified versions increased in proportion to the length of the piece. The further the end from the beginning the less problematic (indeed, the more desirable) was a non-tonic ending. This only emphasizes the extent to which musical response operates locally, as the oldest performers a century ago assumed. Performers seem to outline structures, and feel that they are, but in fact all they are doing is working from moment to moment while keeping a sense of longer-term intensity modulation: a little more here, a little less there, and so on. (24) If there is more direct control exercised over the whole it has yet to be shown. This rather approximate sense of parts of the piece other than that being played or heard can be seen in Deliège’s demonstration that listeners use a process of cue abstraction—memorable features that represent and stand in for larger sections of a composition in memory—in order to reduce the complexity of a composition to memorable features (see Deliège et al. 1996, 5–8). Granot and Jacoby (2011), testing listener sensitivity to overall structure in sonata form, find musicians and non-musicians somewhat sensitive to local features and generic markers of formal role, but oblivious to tonal structure. Deliège et al. (1996)—also Cross et al. 1996—have shown how listeners presented with eight segments of a sixteen-measure piece are relatively successful at correctly ordering segments into pairs (musicians more so than non-musicians) but much less successful at ordering pairs back into the original composition (in fact only one participant succeeded and he thought he had failed).

[4.10] We really have little choice but to conclude that music is made (sounded) and perceived locally, through those details of the musical surface that performers are able most precisely to modify and of which listeners are most aware. All this indicates what in all honesty we know very well, that music is controlled and perceived from moment to moment: long-term structures are theoretical, useful for composers, an invitation from analysts to imagine music in a particular way, but apparently not perceptible (save in the vaguest outline via memory). (25)

[4.11] Both these cases—Schenker’s views of structure and performance, and the evidence against structural perception—suggest that to make structures of the sort discovered by music theory a principal focus for performance is misguided, attending to an aspect of music that is not of great import for listeners, nor amenable to perceptible expressivity nor thus to the making of musical meaning. Rather, musical communication is effected between performer and listener at the level of the musical surface as it changes in sound and character from moment to moment. How that communication works, how character is represented in or suggested by sound, what performers do with notes to generate meaning, are the most pertinent questions for those who wish to understand music.

V

[5.1] Perhaps what we most need now, to make progress in bringing music theory into a sensible working relationship with cognitive musicology, is a new and more realistic view of the relationship between composer, score, performer, and listener. Figure 3 aims in this respect to improve on Figures 1 and 2. The composer, as both input to and output from an optional process of formal construction, imagines sounding music, and notates as much of it as s/he thinks necessary, given the performances s/he expects (i.e., given current performance style). For all but living composers that is the end of their involvement. The notation, to composers, means the sounds they imagined, but not to anyone else. Given performers contemporary with the composer and local to them (especially given performers they know) there is a fair chance that the sounds emerging from a performance will be physically like those imagined, and that their meaning will be perceived in a somewhat similar way by listeners. But for most Western music that is not the case. When a performer picks up the notation s/he is essentially starting from scratch, with no aural knowledge of performances contemporary with the composer, and with a radically different set of assumptions about what is musical (determined by their very different performance-stylistic education and more general communicative context, their culture indeed). What emerges from those notes is very different from what might have emerged early on in the life of the score.
[5.2] Why was this not always obvious? Although, as I have said, elderly musicians would have become aware of recent change, no one, until recordings began to accumulate, could have known how much performance style changes or that the process is (or so far appears to be) unceasing.\(^{(26)}\) Once that became evident new music was anyway being recorded, providing for the first time reasonably clear evidence of how the scores were originally expected to sound. Not that the problem disappears: there is still no sign that anyone wants to hear Wagner as he was sung and played in the earliest recordings. But before the music of the late nineteenth century there is no adequate evidence of performance style to follow or to reject, nothing, in fact, to contradict our own period assumptions.

[5.3] To put it at its most stark, music is not transmitted from the more distant past. Only notation survives. Looking now at the other side of Figure 3's double lines, across which only notation and inadequate words may pass, we find performers making what they can of that information, and doing it necessarily in a way that makes sense to their contemporaries. The Lethe river represented by those vertical lines is not otherwise passable. To imagine it can be bridged is wishful thinking. If ever, for a moment, the sounds made on both sides correspond, there is no way of knowing that they do.

[5.4] In view of this it would be wise to try to get out of the habit of ascribing much of what we hear in scores either to the composer or to the inherent nature of a work. The agency is in fact the listener's or the analyst's in response to the performer's responding to the notation determined by editors making their own sense of whatever was left by the composer or the nearest surviving sources. The chain is far too fragile to justify for any actor within it a solo role in determining musical character or intention;\(^{(27)}\) and too fragile, therefore, to support a work concept anywhere along its length beyond the composer's mind. The notion that a composer has left us something (some thing) that includes within it a particular network of interrelations generating (given an ideal commentator) definable meaning, irrespective of the sounds performers may make or of changes in the mentality of performers and listeners, is not sustainable.\(^{(28)}\)

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Works Cited


Argus.


Footnotes

1. One sees this again and again in reviews of concerts and recordings. The sense that a performance worked (for us today, that is) generates a sense of entering into the composer's mental world (which may, in fact, have felt very different). A rich example, including the notion of a disc as a vehicle for spiritual transport, comes from a record review by Rob Cowan: “Every now and again the flames that lick at the heart of Beethoven's late quartets need to be rekindled. The Takacs Quartet meet that need. They probe, ponder and play; attend to the letter but the spirit always comes first—you can hear how in the sensitivity of their phrasing, the vitality of their attack, their humility in the face of the music's abundant mystery. Were I to tempt new listeners out of the everyday into Beethoven's exalted world, the Takacs would be my preferred digital carriers” (Cowan 2005). The attitude can be seen permeating many of the nineteenth-century quotations included in Hunter 2005. The longevity of the notion simply emphasizes that to feel this sense of reaching the composer's understanding of her/his score supplies a significant psychological need.

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2. Prior (submitted) reports a telling example from an interview with a performer/composer, “Viktor” (his identity protected by the nature of the study). As a performer he “revealed his clear feeling of obligation to submit to the composer's authority”; yet as a composer “he was very willing to allow the performers of his composition considerable freedom of expression, acknowledging that he did not have control over the performance: “Who am I to . . . tell them how to interpret it?” I suggest that this is completely typical, exposing how conflicted performers have become thanks to the composer-sanctifying ideology permeating music education at all levels.

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3. Naturally the canonization of performers is just as unhelpful. Its absurdities (Adidas’s Lang Lang sneakers, for example) tell us plenty about marketing but nothing more about where music is made.

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4. Schenker himself provides a nice example, expressing in 1925 (aged 57) his amazement at the extent of recent performance style change (Schenker 1994, 111; Cook 2011, 305). Czerny had noticed the same process by the time he reached his mid-50s (b. 1791, this comment publ. 1846: Badura-Skoda, ed. 1970, 64).

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5. A convenient start-date is 1897, the formation of the Gramophone Company and with it the start of significant commercial recording of music.

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6. The recent literature on recordings as evidence for past performance practices, and their implications for the understanding of scores, is extensive. A good starting-point is Cook et al., eds. 2009. On the practical respects in which recordings undermine notions of musical works see Leech-Wilkinson 2009a, chapter 2.

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9. To judge by the medieval distinction between cantor and musicus this has been the case previously as well.

10. I have suggested in Leech-Wilkinson 2009c that most recorded performers do not radically change their performance styles as styles around them change, and I am suggesting here that the same may well apply to anyone imagining music.

11. Gallope 2011 arrives, from a deconstructive perspective, at a closely-related conclusion involving the inseparability of technicity from musical experience (esp. p. 60).

12. To clarify, by musical meaning I have in mind emotional or associative experiences of music, triggered by the sound of a performance (real or imagined), that seem to give the notes a particular character or identity.

13. Despite practical, theoretical and philosophical assaults (since Taruskin 1982) the idea that, using written evidence, one can reconstruct a pre-recording performance style seems never to lose its romantic appeal. For a recent revival see Walls 2003. Leech-Wilkinson 2009c suggests that “changes in recorded style force us to rethink the whole subject of performance practice before 1900, and perhaps even to abandon it as having any practical application” (p. 247; see also Leech-Wilkinson 2009a, chapter 2, esp. pars. 17–19. Leech-Wilkinson 2011 offers some “crumbs of comfort”).


15. www.chasingthebutterfly.no. See especially the pages on “Ambiguity and Multi-layeredness” and “Tempo Modulation, Swing, and Structure.”

16. Elgar’s “Nimrod” is another example of the same phenomenon. For discussion of this sort of expressive inflation see Leech-Wilkinson 2009c.

17. A transcription of Shawe-Taylor’s radio script, which survives in the BBC Written Archives at Caversham, is available at http://www.charm.kcl.ac.uk/sound/sound_radio.html. The recording has been transferred as http://charm.cchcdn.net/audio/flac/DB_6180_2A_073221.flac (side A) continuing in http://charm.cchcdn.net/audio/flac/DB_6180_2A_073222.flac (side B). It can be streamed as MP3s by replacing “flac” with “mp3” twice in each address.


19. Alternative but musically workable ways of sounding “Erlkönig” (slow and dreamlike), and its polar opposite in Beethoven’s “Moonlight” sonata (fast and tempestuous), are suggested in Leech-Wilkinson, forthcoming.

20. Brown 2011 provides one especially thought-provoking case-study of the extent to which failure to grasp the nature of contemporary intellectual context leads to serious misreading of composers’ thought (see esp. p. 140) to place alongside Cook 2007 on Schenker’s.
21. The sense of his place in that tradition is brought into focus by Snarrenberg (Snarrenberg 1997, 151).

22. In Cook's delightful phrase (Cook 2011, 307), “Performance style, in short, is the elephant in the musicological room.”


25. For an interesting attempt to identify emotional expression in musical form see Spitzer 2009. Spitzer identifies expressive attributes in the score that I argue here are substantially contributed by performers. In this light I would suggest that the revolution in Mozart reception precipitated by Saint-Foix, discussed by Spitzer, reflects changes in twentieth-century Mozart performance as much as in a way of reading notes that are in themselves considerably less specific of musical affect than is generally assumed. Whether Mozart heard (or “heard”) his music as we do is another question yet.

26. It would be intriguing to see whether elderly composers, more aware that performance style changes, annotate their scores with more extensive performance indications. I thank a reader for MTO for causing me to notice that Schoenberg's H and N indications, intended to help “conductors of the future” (the Preface to Op. 22), begin to appear as a particularly marked change in performance style must have become unmistakable to musicians of his age (cf. the performance styles of the Joachim/Grieg/Patti and Flesch/Cortot/Gerhardt generations). On the mechanisms driving performance style change see Leech-Wilkinson 2009c.

27. John Butt's much broader conception of the composer's intentions (Butt 2002) allows a significant and welcome role for performance in determining the nature of a composition, and I very much share his view that delusions of historical verisimilitude may be useful. But that in itself does not excuse scholarship's confusion about responsibilities along the chain of transmission. The emerging concept of distributed creativity looks promising as a general way of conceptualizing these.

28. So I also reject what Carolyn Abbate identifies in musical hermeneutics as “faith in legibility,” where “legibility means believing that musical artifacts at later points can be read for exact localizable traces, that once upon a time something left a mark, and that reading such traces for the facts they reflect accesses the proper meaning that one should attach to musical sounds” (Abbate 2004, 515). Much in that extraordinary article resonates here, although in relation to her wider call I am arguing here that we have been talking about performances (though not, of course, performance) all along.

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*Prepared by John Reef, Editorial Assistant*
Definition: F1 score is defined as the harmonic mean between precision and recall. It is used as a statistical measure to rate performance. In other words, an F1-score (from 0 to 9, 0 being lowest and 9 being the highest) is a mean of an individual’s performance, based on two factors i.e. precision and recall. What Does F1 Score Mean? What is the definition of F1 score? Precision is defined as the accuracy of judgment. For example, in a random population sample of 100 people, to be counted for composition of male and female, Person A estimates the count of male population to be 70. If actually...