More than anything else, I suppose, it was Wallace Berry's book *Musical Structure and Performance* that marked the emergence of 'analysis and performance' as a recognized subdiscipline within music theory.' Yet Berry's book reads more like the summation than the opening-up of a field. It represents not so much a cross-disciplinary exercise-the attempt to forge a relationship between two fundamentally different activities-as an attempt to incorporate performance within the existing intellectual framework of theory. Berry's very language locates the intersection of analysis and performance firmly on the theorist's turf; his aim, says Berry, is to investigate 'how ... a structural relation exposed in analysis can be illuminated in the inflections of edifying performance'. In this way the direction is always from analysis to performance, and Berry reiterates this to the point that you almost wonder if, deep down, he really believes it. He refers to 'the path from analysis to performance', and elsewhere to 'the path from analysis to interpretive decision', he speaks of 'the findings of analysis and consequent outlets in performance', and of such findings being 'in turn' expressed in performance.' And the parentheses say it all when he refers to 'principles of structure (and hence of realization in performance).’ Performers, it seems, have a great deal to learn from analysis; the possibility of a reciprocal process of learning is apparently not considered.

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3 Ibid. 10, 2.

4 Ibid. x, 218.
This prescriptive conception of the relationship between analysis and performance is by no means unique to Berry; Eugene Narmour provides an even more extreme instance. In his article 'On the Relationship of Analytical Theory to Performance and Interpretation', Narmour asserts that 'It is obvious that if formal relations are not properly analyzed by the performer, as well as carefully delineated in the performance itself, then many negative consequences follow.' As illustrated in relation to a few bars from *Der Rosenkavalier*, his procedure is first to analyse the music; next to derive from this an 'analytically justifiable recreative interpretation', which he presents in the form of an annotated score; and finally to assess a selection of existing recordings against his annotated score. On this basis, he produces what might be termed a 'buyer's guide'; the best buy, by a comfortable margin, turns out to be Karajan's recording. For Narmour, then, this recommendation is very much more than just a personal critic's choice. 'Of course', he says, 'in an art like music there can never be any such thing as the definitive performance.' But he immediately adds: 'The point, however, is that, given the analytical theory applied in example 9 [his annotated score], we can say more or less objectively that ... certain performances are subtly though demonstrably better than others.'

According to Tim Howell, the general tone of music-theoretical writing about performance is 'authoritarian.' The word certainly seems to fit Narmour's article; he frequently stipulates what the performer must or must not do, judging one performance correct and another incorrect. Bernstein, for instance, makes an 'obvious mistake' when he crescendos in bars 128-9 of the first movement of Haydn's Symphony No. 83. Julius Katchen's handling of motives in Brahms's Intermezzo Op. 118 No. 1 is 'inexplicable'; his performance 'lacks analytical insight and therefore perceptual consistency'. And in a footnote, Narmour exclaims in exasperation that 'Sometimes conductors do utterly inexplicable things that make no sense at all', instancing a performance of the *Rosenkavalier Suite* by Andre Previn. Such a sentiment may be understandable enough. But what is striking about it from a methodological point of view is the readiness

5 Berry, Musical Structure, xi-xii
7 Ibid. 319.
8 Ibid. 334.
9 Ibid. 334-5; emphasis added.
11 Narmour, 'Relationship, 325.
12 Ibid. 319.
13 Ibid. 333.
with which Narmour is prepared to abandon the attempt to understand what performers do; theory, it seems, is not committed to understanding performers in the way it is to understanding composers. (Have you ever heard a theorist say, 'Sometimes composers do utterly inexplicable things that make no sense at all'?)) The assumption that theory exerts some kind of hegemony over performance is so entrenched that Narmour simply doesn't consider the possibility that the failure to understand what a performer does might be a reflection on the theory rather than on the performance.

The prescriptiveness of Narmour's writing reflects a prescriptiveness that is characteristic of, and even perhaps definitive of, music theory as a whole. A conspicuous example is Fred Lerdahl's article 'Cognitive Constraints on Compositional Systems', which offers among other things the rare instance of an explicitly negative critique of a composition (Boulez's 'Le Marteau sans Maitre'). Like Narmour's article, Lerdahl's was published in 1988, and the two work in rather similar ways. Both assume that there should be a more or less linear relationship between the manner in which a composer conceives a composition and the manner in which a listener perceives it. But whereas Narmour's focus is on the role of the performer as a link in this communicative chain, Lerdahl's aim is to specify the conditions that must be fulfilled if there is to be conformity between 'compositional grammar' and 'listening grammar'. And, like Narmour, he ends up by measuring existing music against the stipulations of his theory, using this as a basis for aesthetic evaluation. The result is to write off not only the Darmstadt avant-garde and minimalism, but also huge swathes of non-Western and popular music. It turns out that 'the best music' must necessarily involve pitch hierarchies, diatonic scales, and a triadic pitch space; it must, in fact, be 'based on "nature"'. It could almost be Schenker talking.

Like Schenker (who was also prepared to turn his theory to the purposes of negative critique), Lerdahl possesses the rigour of extremism; he is not afraid to pursue his principles to their logical conclusions, however counter-intuitive or even occasionally offensive they may be. I cannot be the only theorist to have a sneaking suspicion that much of what he says makes sense—perhaps more of it than I had bargained for', to borrow Lerdahl's own words.' The trouble is that you can't pick and choose among Lerdahl's conclusions; they are all of a piece. In other words, if you can't accept all Lerdahl's conclusions (and how many of us can?), then it is no good simply attacking his logic, because there is nothing wrong with it. Instead, it is necessary to question the basic framework of his argument. And this framework is that of structuralist music theory, which is to say the whole of music theory as generally understood today. My aim in this

chapter, then, is to focus on the issue of analysis and performance not so much for its own sake, but for what it can tell us about music theory in general. My central proposition is that a theory which does justice to performance will be at the same time a theory aware of its own performative qualities; in a nutshell, we need to think about what our theory does as much as about what it represents. Or so I shall argue.

II

Lerdahl's 'Cognitive Constraints on Compositional Systems' is based on the generative theory of tonal music (GTTM) that he developed in conjunction with Ray Jackendoff, and GTTM is in turn based on structural linguistics. More specifically, it is based on Chomsky's distinction between competence and performance: that is to say, between the abstract knowledge on which any rule-based system depends and the use of that knowledge in any given situation (the production and reception of speech in Chomsky's case, of music in Lerdahl and Jackendoff's). Seen from this perspective, performance-including, of course, musical performance-becomes an epiphenomenon of competence; as Lerdahl and Jackendoff put it, 'In our view it would be fruitless to theorize about mental processing before understanding the organization to which the processing leads.' This movement from competence to performance, from abstract knowledge to practical realization, constitutes Lerdahl's and Jackendoff's basic explanatory paradigm, and Narmour's, and indeed that of all structuralist thinking.

In this way, Lerdahl and Narmour both eliminate the musician as an individual, and replace him or her by a theory whose input is some kind of musical text and whose ultimate output is an aesthetic judgement; like all music theorists, perhaps, they explain music without musicians. But perhaps the most striking example of this kind of elimination of the musician as an individual is represented by the work of Eric Clarke, Neil Todd, and other proponents of the generative approach to musical performance. Their outstanding success in explicating some of the cognitive schemata underlying musical performance has come at the expense of interpreting 'expression'-traditionally seen as the core of performers' individuality-as itself an epiphenomenon of structure; performers introduce rubato and other deviations from the notated music, they claim, in order to project or bring out (in a word, to express) its underlying struc-

Ibid. 4.

20 Lerdahl is careful to explain that the constraints which he outlines in his article constitute a necessary, but not a sufficient, condition of high aesthetic value ('Cognitive Constraints', 255).

ture. And this structuralist interpretation of the word 'express' is really no different from the well-established Schenkerian usage according to which, for instance, compositional design 'expresses' structure. In each case, the effect is to explain expression away, and with it the performer; the music is seen as expressing nothing but itself. The result is to give a psychological interpretation to Hanslick's metaphysical model of musical autonomy.

The concept of 'expression' provides a convenient means of introducing an important critique of this kind of structuralist thinking. Judith Butler has written that 'There is no gender identity behind the expressions of gender; that identity is performatively constituted by the very "expressions" that are said to be its results.' We can generalize Butler's point—which Suzanne Cusick summarizes as 'gender is as gender does'-by saying that we tend to explain individual behaviour (including gender-related behaviour) as an epiphenomenon of social structure." And Butler's argument is that this is to put everything back to front; it is individual behaviour that gives rise to social structure, not the other way round. But her point goes a bit further than this. When she refers to 'performativity', Butler is invoking speech-act theory, which emphasizes the extent to which linguistic meaning subsists in what language does, rather than what it represents; this is by virtue of what is referred to as its 'illocutionary force'.' What she is saying, then, is that there is no such thing as gender identity independent of the behaviour that 'expresses' it; it is a matter of what your behaviour is, not what it represents. And there is an obvious affinity between this and the argument recently advanced by Philip Bohlman for seeing musicology as a 'political act'; as he puts it, musicology 'not only describes but prescribes through its acts of interpretation'. Musicology, in short, doesn't just reflect practice; it helps mould it.

But I want to be more specific and suggest that if we change just one of its words, Butler's maxim becomes directly applicable to music theory: 'structure', it would now read, 'is performatively constituted by the very "expressions" that are said to be its result'. There is an almost banal sense in which this is true of Schenkerian theory. Schenker's concept of structure being ontologically prior to its compositional 'expression' is rooted in nineteenth-century metaphysics; if it retains plausibility today, this is largely because of the rapprochement between Schenkerian theory and structural linguistics. And in this context it is very much to the point that speech-act theory, which Butler invokes, is intimately linked with the pragmatist critique of structural linguistics, which focuses on the distinction between competence and performance on which (as I said) GTTM is based. It has been repeatedly pointed out that this distinction 'provides its

22 Judith Butler, Gender Trouble: Feminism and the Subversion of Identity (New York, 1990), 25.
23 See Suzanne Cusick's discussion of Butler's argument, Ch. 21 below.
24 The definitive exposition of speech-act theory is J. L. Austin, How to Do Things with Words (Cambridge, Mass.,1962); for a convenient, if limited, thumb-nail sketch see Lawrence Kramer, Music as Cultural Practice, 1800-1900 (Berkeley, 1990), 6-9.
proponents with a protective belt that surrounds their grammatical theories and makes them empirically impenetrable to psycholinguistic counterevidence; if experimental data don't conform to the predictions of a theory of grammatical competence, this can always be put down to performative factors (for instance, constraints on cognitive processing). In this way, pragmatists claim, structural linguistics is unscientific because it is irrefutable. Indeed, according to Roy Harris, it represents a pseudo-science, an illegitimate abstraction from the actual circumstances of language use; seen from such a perspective, the idealized grammar known as 'competence' is, in reality, no more than a collection of 'strategies for understanding and producing sentences'.” Instead of reducing performance to a play of abstract structures, then, the pragmatist approach takes it to be a source of signification in its own right.

What would happen if a corresponding critique were applied to the language we traditionally use to describe 'performance' in its specifically musical sense? According to this language, we do not have 'performances' but rather 'performances of pre-existing, Platonic works. The implication is that a performance should function as a transparent medium, 'expressing', 'projecting', or 'bringing out' only what is already 'in' the work, with the highest performance ideal being a selfless Werktreue (itself, as Butler might point out, uncomfortably reminiscent of nineteenth-century conceptions regarding the natural role of women”). Adopting the Butler/Harris approach, we might want to see what music psychologists refer to as performance 'expression'-the unsystematized transformation of notated pitches, dynamics, and articulation-as an aesthetically foundational aspect of music; structure, as defined by conventional analysis, would then constitute a means of representing or conceptualizing these 'expressive' characteristics, an attempt to capture their trans-situational properties. And more generally, what we call musical 'works' might be regarded along the same lines: that is to say, as means of representing or conceptualizing performances.”

Now such a formulation might perhaps seem more applicable to jazz (where interpretation of 'standards' foregrounds the performance rather than the piece) or to many non-Western traditions than to the Western art tradition; after all,


28 The story of the legitimation of music as composition at the expense of music as performance could clearly be told in gendered terms; it would link the Hegelian identification of the Ideal as male (versus the particular as female) with the historical circumstances under which women became established in the sphere of performance long before they did in the sphere of composition.

29 In effect I am paraphrasing Richard Baumann's argument that the study of performance need not 'begin with artful texts, identified on independent formal grounds and then reinserted into situations of use... Rather, ... Performance becomes constitutive' of the text (Verbal Art as Performance (Rowley, Mass., 1977), 11).
the social practice of Western art-music is organized round works, to say nothing of the aesthetic and analytical literature. At the same time, the bewildering variety of versions in which many established works exist (the slow movements of Corelli's Op. 5 sonatas, for instance, or Liszt's Mazeppa and its multitudinous avatars) demonstrates how permeable the distinction between works and performances has often been in the Western tradition.\(^{30}\) Even within the canon of master-works, the performance-orientated formulation is in many ways a more accurate reflection of musical reception than the traditional model of the relationship between work and performance. The advertising pages of any CD magazine show that it is generally the performer as an individual who is marketed, rather than the work; consumers buy Beethoven or Rachmaninov, but as often as not it is Alfred Brendel, or David Helfgott, who motivates the purchase. (Perhaps the canon might be defined as a set of works so familiar that they function more as medium than message.) But I don't think we should look upon this as something that admits of an either/or solution; just as it is impossible fully to understand the reception of Beethoven's or Rachmaninov's music without taking into account the musicians who perform it, so it would be absurd to try and understand Brendel's or Helfgott's playing without reference to \textit{what} they play.

Instead of assigning either work or performance priority over the other, then, the best course is to see them as having a relationship of dialogue with one another." Lawrence Rosenwald expresses this well when he says that the piece exists 'in the relation between its notation and the field of its performances'.\(^{31}\) Seen in this light, composers and performers collaborate in the creation and maintenance of the repertory." Signs of a corresponding reorientation can be detected in some current writing on analysis and performance; there is a new emphasis on the mutuality of the analyst/performer relationship, as against the hegemonic relationship assumed by Berry and Narmour.\(^{34}\) Joel Lester speaks of the desirability of a 'reciprocal discourse' between theorists and performers; as he puts it, 'Performers could enter analytical dialogue \textit{as performers-as artistic/intellectual equals, not as intellectual inferiors who needed to learn from theorists.}' (It is the theorists, he says, who need to listen to performers.)\(^{\text{35}}\) And as


\(^{31}\) Although I am not specifically invoking Bakhtin, my argument at this point might usefully be read in the light of his account of utterances (see Kevin Korsyn's chapter, 4 above).


\(^{34}\) A major stimulus to this development seems to have been Berry's book itself; practically every published review (and there were many, by Lester, Clarke, Rink, and Larson and Folio among others) criticized its prescriptive nature.

\(^{35}\) Joel Lester, 'Performance and Analysis: Interaction and Interpretation', in John Rink (ed.), \textit{The Practice of Performance: Studies in Musical Interpretation} (Cambridge, 1995), 197-216; there are many resonances between the present chapter and Lester's. Among writers calling for the analysis of performances rather than simply of compositions are Rosenwald ('Theory, Text-setting', 63) and Jonathan Dunsby ('Real Music', Newsletter of the Society for Music Analysis, 4 (Jan. 1993), 8-9, p. 9); and there is a growing literature which attempts to provide exactly that. (One example among several is my chapter 'The Conductor and the Theorist: Furtwängler, Schenker, and the First Movement of Beethoven's Ninth Symphony', in \textit{Practice of Performance}, 105-25; see in addition Jose Bowen's chapter, 19 below.)
long ago as 1985, Janet Schmalfeldt actually provided an idealized instance of such a dialogue; her article 'On the Relation of Analysis to Performance: Beethoven's Bagatelles Op. 126, Nos. 2 and 5' takes the form of a conversation in which Schmalfeldt the analyst and Schmalfeldt the performer trade insights with one another. It is noticeable, however, that the two Schmalfeldts tend to lecture one another rather than interact freely, and one is ultimately left with the impression that the analyst-Schmalfeldt holds all the cards. (Rosenwald comments shrewdly that the performer-Schmalfeldt's encomium to analysis 'feels a bit too much like a Puritan conversion-narrative'.

Schmalfeldt readily admits that there are areas where the analyst-Schmalfeldt's and the performer-Schmalfeldt's concerns do not intersect; as she puts it, 'it is one thing to consider how we might some day realize a score, and it is quite another thing to perform the work.' This eminently sensible remark exemplifies a second strategy for escaping the prescriptiveness of the Berry/Narmour approach: what might be called the model of partial intersection. Another example comes from Jonathan Dunsby, according to whom 'Understanding and trying to explain musical structure is not the same kind of activity as understanding and communicating music'. He explains this in terms of what he calls a rather simple distinction, one which is often overlooked, between interpretation and performance. A particular analysis may well lead to the conviction that a particular kind of interpretation is essential, but how to convey that interpretation to the listener in performance is a different matter.

Dunsby's approach is very much along the lines of Schenker's well-known distinction between the musical effect and the manner of its realization in performance. This avoids the blatant prescriptiveness of the Berry/Narmour approach to the extent that it allots an area of creative freedom to the performer. Yet it still vests ultimate authority in the analyst, who (at least in Schenker's eyes) remains responsible for defining what the work is; for, as Schenker puts it, 'Performance must come from within the work; the work must breathe from its own lungs—from the linear progressions, neighboring tones, chromatic tones,

37 Rosenwald, 'Theory, Text-setting', 61. Equally pointedly, Lester refers to Schmalfeldt's 'imbalanced dialogue: her pianist-persona is learning to play the pieces, but it is obvious from her prose that her analyst-persona has studied them long and hard' ('Performance and Analysis', 198 n. 1).
38 Schmalfeldt, 'Relation', 19.
modulations.' And he adds: About these, naturally, there cannot exist different interpretations.

But the main problem with this approach, as I see it, is that it continues to look for a one-to-one mapping of analysis and performance on to one another within the areas of their communality; John Rink describes this as 'too simplistic a translation from analysis to performance.' It may be unwise to use the word 'translation' at all in this context, for it suggests the possibility of a smooth transformation from the one to the other, an unproblematic transference of analytical content into the domain of performance. On the other hand, Rosenwald points out that, in its primary application to language, the idea of translation is by no means as simple as this might suggest: 'we do not know the original,' he says; 'do not and cannot know it in se, and ... come to know it precisely by means of reflecting on its translations.' And as Fred Maus points out in his commentary on Rosenwald's article, 'in this process of exploration the distinction between "making" and "finding" meanings is obscure.' Translated (and I do mean translated) back into terms of performance, this argument suggests once again that performance should be seen as a source of signification in its own right. It does not simply 'express', 'project', or 'bring out' originary meaning - meaning which, in Rosenwald's words, we cannot know in se. If we come to know the original 'precisely by means of reflecting on its translations', then it follows that performance is a source of musical meaning. Put like this, it seems almost too obvious: how could performance be anything else?

III

From this perspective, one is bound to look askance at the dualism implicit in such traditional statements as 'only when one has reached the point where one feels completely certain of how the piece must go should the realization process commence.' (Berry condenses this into seven words when he writes of

40 From Schenker's unfinished 'Entwurf einer "Lehre vom Vortrag"' quoted and translated by William Rothstein, 'Heinrich Schenker as an Interpreter of Beethoven's Piano Sonatas', 19th-Century Music, 8 (1984), 3-28, p. 10. This analytically based sense of 'interpretation' needs to be distinguished from two other usages: Schenker's pejorative use of the term to signify arbitrary and personal performance and a usage more characteristic of the performance literature proper, according to which it refers to performance at the highest level; Cortot e.g., says that 'If you love her [music] to the extent of dedicating your life to her service ... [y]ou will have become an interpreter, not merely a performer' (Jeanne Thieffy, Alfred Cortot's Studies in Musical Interpretation (London, 1937), 16).
42 Rosenwald, 'Theory, Text-setting', 62.
44 JoanAllen Smith, Schoenberg and his Circle: A Viennese Portrait (New York, 1986), 106. paraphrasing Kolisch. Similar statements may be found in such writers as Erwin Stein (The performer must have a crystal-clear conception of the music he is going to play' (Form and Performance (London, 1962), 19)) and Hermann Scherchen, according to whom 'the alpha and omega of conducting' is 'the capacity to conceive an absolutely ideal performance in the imagination' (Handbook of Conducting, quoted in Christopher Wintle, Analysis and Performance: Webern's Concerto Op. 24/II', Music Analysis, 1 (1982), 73-99, p. 74). Stein's reference to the performer's need to have 'a whole piece of music in a nutshell in his mind' (Form and Performance, 71) links this conception with, on the one hand, Schoenberg's conception of musical space and, on the other, the nineteenth-century tradition of statements about conceiving an entire composition as a single, simultaneous image that were (fraudulently) ascribed to Mozart and Beethoven, and that occupy an important place in Schenker's Der freie Satz (Free Composition, trans. and ed. Ernst Oster (New York, 1979), 128-9).
proceeding from conceptualization to realization in performance.\(^{45}\) The dualism to which I refer is between abstract conception, on the one hand, and concrete realization, on the other; and it reappears in the related maxim that 'after the intellect has finished work, the instinct must take over. In performance the analysis must be forgotten.'\(^{46}\) (Again, this is reflected in Berry's remark that 'The analytical comprehension of structure is usually assimilated to a submerged level of consciousness'.\(^{47}\) A performative approach to performance, if it may be called that, would instead stress the inseparability of intellectual and bodily knowledge, the way in which the one informs the other;\(^{48}\) in this light, a far more realistic attitude is embodied in Glenn Gould's statement that 'the ideal way to go about making a performance ... is to assume that when you begin, you don't quite know what it is about. You only come to know as you proceed.'\(^{49}\)

And this has practical implications for the relationship of analysis and performance. Berry suggests that the analysis that ultimately guides performance is distilled: it is a selective determination along inferred lines of structure that are a basis for the reasoned, reasonable unity to which the analytical enquiry ideally leads, and which in turn is expressed in illumined, illuminating performance.\(^{50}\) In other words, you complete the analysis, and then you decide on appropriate performance 'interventions' on the basis of that analysis. ('Intervention' is one of Berry's favourite terms, and it is again highly dualistic; the implication is that performance is something like 'flying by wire', with the option of manual override in case of emergency; that is to say, should structure be endangered.) And this approach exactly complements the traditional piano teacher's approach of which Ralph Kirkpatrick wrote, 'Their admonition was, Learn the notes and then put in the expression.'\(^{51}\) But if analysis and performance are to be seen as interlocking modes of musical knowledge, then they should be pursued simultaneously and interactively, not in succession." Or to put it another way, analysis should be seen as a means of posing articulate questions, and not, as Berry

45 Berry, Musical Structure, 217.
46 Benjamin Britten, foreword to Stein, Form and Performance, 8.
47 Berry, Musical Structure, xi.
50 Berry, Musical Structure, 218.
51 Ralph Kirkpatrick, Interpreting Bach's Well-Tempered Clavier: A Performer's Discourse of Method (New Haven, 1984), 128. Kirkpatrick continues: 'My admonition is to learn the notes and understand their relationships, and then to draw the expression out.'
52 For a concrete illustration of what this might entail, see the previous chapter by John Rink.
suggests, as a source of answers; in Howell's words, 'The role of analysis in this context is one of raising possibilities rather than providing solutions.' Yet another way of saying the same thing is that analysis contributes (as I would maintain it always does) as process, not as product, which is why, as Howell says, 'Reading someone else's analysis, even if specifically targeted as "performer friendly", is almost the equivalent of asking someone to practise on your behalf.' Or to rephrase it in terms of pragmatics, what matters about analysis is not so much what it represents but what it does, or more precisely what it leads you to do.

What might be called 'structurally informed performance', as urged by Berry or Narmour, aims, the, at a more or less literal translation of the product of analysis. I have no wish to deny that such a style of performance is possible, or indeed that it may be a valid option (although such structurally informed performance can all too easily verge on the patronizing or, to use William Rothstein's word, pedantic). But the point is precisely that it is an option, which is to say that there are other options, and this is something that cannot be formulated in terms of the dualistic language of 'expressing', 'projecting', and 'bringing out' structure. In statements that I have already quoted, Berry refers to structurally informed performance as 'edifying', 'illuminated', and 'illuminating'; the real point, however, is not so much the implicit value-judgement, but the fact that he has no other language for talking about performance. And I would maintain that the tenacity of the structuralist paradigm in writing about music is as much a linguistic phenomenon as a conceptual or ideological one.

A revealing example of the tenacity of this paradigm is provided by Robert Wason, in his commentary on Webern's Piano Variations, and specifically on the performance indications that Webern communicated to Peter Stadlen, who gave the first performance." In the article that he wrote on this topic, Stadlen (whose purpose was largely polemical) denied that there is any significant coincidence

53 The analysis which informs interpretation affords a basis-the only basis-or resolving the hard questions both of general interpretive demeanor and of those elusive refinements of detail which make for performance which is both moving and illuminating (Musical Structure, 223).
54 Howell, Analysis and Performance', 709.
56 Howell, Analysis and Performance', 702. Although this point is well taken, it does rather depend what kind of 'reading' is involved. An adequate reading of an analysis, as of a literary or musical text, involves a process of recreation in experience; it involves making 'somebody else's' analysis your own. (As Fisher and Lochhead put it, 'For the performer encountering an analysis by someone else, it may provide the basis for an inner hearing as the performer comes to own the analysis' (Analysis, Hearing', 36).) Were it not so, there would be little point in publishing analyses.
57 William Rothstein, Analysis and the Act of Performance', in Rink, Practice of Performance, 217-40. As Rothstein puts it, 'to perform the analysis is not to perform the piece' (229); he focuses on situations where the performer needs to conceal structure, rather than bring it out.
58 See Robert Wagon, 'Webern's Variations for Piano, Op. 27: Musical Structure and the Performance Score', Intégral,1(1987), 57-103, and Peter Stadlen, 'Serialism Reconsidered', The Score, 22 (1958),12-27. Peter Stadlen's performance score, incorporating Webern's annotations, is published as UE 16845 (Vienna, 1979). If Webern felt so sure that there always was, at least in music, just one way of doing things' (Lehrigstein, quoted in Wintle, Analysis and Performance', 75), then these annotations should presumably be considered integral to the piece, at least as Webern intended it.
between the serial structure and Webern's performance indications. Wason disagrees; he argues that both serial structure and performance indications are correlated with the phrase structure, so that there is an indirect connection between the two. But what causes him embarrassment is what might be called the `melody line' of the first movement—that is to say, the sequence of notes at the top of the texture. Webern instructed Stadlen to bring out this line; yet it cuts right across the serial structure. Wason can do no better than conclude, lamely, that 'the derivation of these "melody" notes is itself an interesting phenomenon for future study, although ... it has so far eluded explanation'. He salvages as much as he can from this failure by concluding that such indications, which 'point to structural features not immediately retraceable to the row ... produce a tension against the structural segmentations, while certainly assuming their existence'. But this sounds suspiciously like a convoluted way of saying that the two have nothing to do with one another.

Rosenwald suggests that such a situation might be the norm, rather than the exception, when he remarks that 'perhaps we could get a livelier dialogue between performer and analyst if the performer were prepared, on analytic grounds, to make a case for the performance of unstructural or antistructural detail'. Certainly it would be an interesting theoretical task to define general situations in which performing 'against' the structure is an appropriate strategy, whether because 'The music is so clear that the interpreter may occasionally phrase against formal segmentations of the music without placing that dimension of the music in jeopardy of total loss,' or because a piece is too well known and needs defamiliarizing (as might be argued of Mengelberg's performances of the Ninth Symphony, or Roger Norrington's for that matter). But by asking the performer to make the case 'on analytic grounds', Rosenwald perpetuates the classic theorist's strategy of shifting the dialogue between analysis and performance on to the theorist's turf; in this way the dialogue he asks for is already rigged. Following Jennifer Tong, I would like to counterpose not so much the analyst and the performer but rather the 'writing' and the 'performing' musician, or, perhaps more precisely, music as writing and music as performance. And by this I mean to suggest that what is at issue in thinking about performance isn't so crucially a complementarity of respective analytical concerns (in Rosenwald's terms, accommodating the imperatives of

59 Wason, 'Webern's Variations', 95.
60 Ibid. 101-2; emphasis added.
61 Rosenwald, 'Theory Text-setting', 63.
62 Wason, 'Webern's Variations', 102. Characteristically, Wason continues 'although obviously one must have a clear understanding of just what one is "playing against"'.
63 Jennifer Tong Chee Yee, 'Separate Discourses: A Study of Performance and Analysis' (Ph.D. disc., University of Southampton, 1995). My thinking on analysis and performance has been tangled up with Tong's for the past four years, and I would like to thank her for an influence on my views as expressed in this chapter which I find hard to quantify. Jean-Jacques Nattiez, too, stresses the centrality of writing in the constitution of analysis: 'there is no analysis except that which is written, that which has a material presence' (Music and Discourse: Toward a Semiology of Music, trans. Carolyn Abbate (Princeton, 1990), 70).
structure and of surface to one another) as the sheer incommensurability of writing and playing.

Seen this way, musical performance involves negotiating between the demands of physical gesture and sound (we can classify these under the heading of 'playing') and those of notation and its associated verbal traditions ('writing'). We might speak of translation between these incommensurable media, but only in Rosenwald's strong sense of 'translation' that emphasizes the semantic friction inherent in the process. This is because the media of writing and those of playing have very different structural characteristics. A score represents the concretization of the contingent, a singular encounter between sound and notation (it is generally only in improvisation that music begins genuinely to resemble the rule-based structures of grammar). And the language use that is aligned with and implicated in performance—let us call it the 'literature of performance'—has its own logic and agenda; this is what gives rise to the characteristic divergence between theory and practice. An illustration of this is the concept of 'compensating rubato'—a nineteenth-century pedagogical generalization from the Baroque or early Classical maxim that a melody, however freely played, should be supported by a rhythmically fixed accompaniment. Empirical studies have repeatedly shown that, regarded as a description of practice, this 'theory' is simply wrong; it does not reflect what performers do. But that is because its aim is to modify what performers do; it is not a description, but a prescription. And in this sense it is comparable to old-fashioned grammar books, which prescribed 'correct' usage, rather than to the abstract grammars of structural linguistics; its meaning resides in its illocutionary force.

There is a general principle at work here. We tend to justify the prescriptive application of models and theories on the grounds of their descriptive validity; in effect, Narmour claims the right to judge the quality of performances because he claims that his theoretical model is a valid description of cognitive processes. But the aim of a prescription, unlike that of a scientific description, is to perturb the phenomenon to which it applies; it is (to appropriate Berry's word) an intervention. It follows that the significance of a prescriptive model (such as 'compensating rubato') lies precisely in the gap between theory and practice. And I take this to be emblematic of the relationship between music as writing and music as playing, of which Howell writes that 'from this apparent conflict

64 For a general account see Robert Philip, Early Recordings and Musical Style: Changing Tastes in Instrumental Performance, 1900-1950 (Cambridge, 1992), 38-44. The basic idea is that any accelerando must be 'paid back' by a corresponding rallentando, or vice versa, whether within the bar or within some higher-level metrical unit.
65 The classic study is John McEwen, Tempo Rubato, or Time-variation in Musical Performance (London, 1928); see the discussion in Philip, Early Recordings, 44-9.
67 Psychologically based writers such as Clarke and Todd, by contrast, scrupulously avoid this kind of leakage from description to prescription; it is this, as much as anything else, that marks their work as something distinct from 'music theory' as generally understood.
between the rational and the instinctive comes a highly creative force'. He continues: 'If this essay has any didactic purpose for performers then it is to encourage them to exploit this creative force, to play off intuitive responses against analytical perceptions in order to shape an interpretation.'

IV

What is true of the literature of performance is equally true of the literature of analysis as a whole (and, as I previously suggested, if this essay has any didactic purpose, it is to use the analysis of musical performance as a model for the performativity of analytical writing in general). In this context, the term 'literature' is more than rhetorical; analysis is a genre of literary production, whose master narrative was for a century and a half the ideology of organicism, but has increasingly become the logic of disciplinary identity. For the autonomy of music theory as a discipline is predicated on the meaningful abstraction of music from context; and if it is true (as who has not on occasion uneasily suspected?) that 'talk about music eclipses music itself as the most fascinating object in the academic firmament', then there is every reason for reading music theory for its performative-and indeed, what might be called its political-content. What, to take a specific example, does an article like Lerdahl's 'Cognitive Constraints on Compositional Systems' actually do? By subordinating the production and reception of music to theoretically defined criteria of communicative success, it creates a charmed hermeneutic circle that excludes everything from critical musicology to social psychology. It slips imperceptibly from description to prescription, so reinforcing the hegemony of theory. In this way, while the literary genre of Lerdahl's article is the scientific paper-a genre predicated on the transparent representation of an external reality-its substance lies at least equally in its illocutionary force. To repeat Bohlman's words, it 'not only describes but prescribes through its acts of interpretation'.

But my main point is a more basic one about what we do when we do theory. I want to suggest that there is an evolving consensus on what might be called a 'performative epistemology' of music theory-the idea, to put it in a nutshell, that one should make analysis true through, rather than true to, experience. David Lewin expresses this clearly when he writes that analysis is 'not an aid to

68 Howell, Analysis and Performance', 698.
70 Seen. 25.
perception, or to the memory of perception; rather, we are in *the very act* of perceiving*. (More extravagantly, he refers to the products of analysis as 'ski tracks tracing the poetic deeds that were the perceptions themselves'.72) Maus expresses the same idea with specific reference to Rosenwald's gloss on the concept of translation: 'perhaps', he says, 'analyses ... could be regarded as translations. That is, analyses can be seen, not as pale copies of a determinate original, but as ways of exploring musical compositions in an ongoing process in which there is no point in distinguishing between making and finding the qualities of the music.73 The last point, to which I have already referred, is crucial; Maus is suggesting that musical meaning is emergent, that it arises out of the mutual interaction of musical texts and critical commentaries. And something of the same is conveyed by Dunsby's reference to the need to recognize the inevitability of the coexistence of music and discourse, and not shy away from it into the retreats of fragmentary subdisciplines, with mute performers, and arid commentators'.74

This performative perspective on analysis constitutes the best defence against the principal charge laid against it by the godfathers of the New Musicology, Joseph Kerman and Leo Treitler: analysis, they say, is interested in music only in the pursuit of abstract generalization, whereas criticism represents a direct, passionate involvement with individual works of music in all their singularity.75 In Treitler's words, which refer specifically to Schenker's book on Beethoven's Ninth Symphony,

Schenker's purpose was to demonstrate the unity of the work and the necessity of its constituent moments, and to display it as exemplification of a theory. This amounts to the *explanation* of the work in the strict sense that its events are seen to follow with the force of deductive logic. My purpose ... was the illumination of the work in its individuality. I take this to be a permanent difference between analysis and criticism.76

Treitler depicts Schenker as translating the objects of musical experience into abstract theoretical categories, resulting at best in the 'pale copy of a determinate original' to which Maus refers (and at worst in an abstraction, Dunsby's 'arid commentary', that cannot be meaningfully related to the sound and fury of Beethoven's music). We need to remember that Treitler was writing in 1980, before the recent move towards understanding Schenker in his historical context; fifteen years later, Treitler's words appear curiously anachronistic, describing what now seems a perverse way to read a text that is so opaque, so

73 Maus, 'Response to Rosenwald', 70. See also Ch. 8 above.
75 On Kerman see Ch. 9 above.
full of ideological and polemical content, so motivated by a passionate involvement with music and a no less passionate conviction of its importance to society, as the Ninth Symphony monograph. Put simply, Treitler is outlining an unprofitable way to read a text that is rooted in and communicates so singular a vision, and audition, of Beethoven's music. And of all the works of the Western art tradition, the Ninth Symphony is the one that most dramatically illustrates the extent to which music acquires meaning from the sedimentation of successive layers of commentary. In its wealth of striking literary images, in its fervent advocacy of the 'absolute music' tradition, and in its attempt to erase Wagner from that tradition, as well as in its documentation for all time of a now defunct style of performance, Schenker's book constitutes an irreversible event in the reception history of the Ninth Symphony." In Maus's terms, the Schenker monograph signifies at least as much by virtue of what Schenker makes of the Ninth as by what he finds in it.

But I want to make a more general point regarding what Treitler contrasts as 'explanation' and 'illumination', corresponding (in his terminology) to 'analysis' and 'criticism' respectively. According to Treitler, criticism focuses on 'the unique qualities of individual works, rather than the system that makes the uniqueness of works possible'." Now a theoretical system is something like a ruler; it is an instrument against which individual phenomena may be measured. Or, more accurately, a theory is a calculus of possibilities, a grid of virtualities, against which a given musical concretion stands in all its specificity. Once again, it is the gap between theory and practice, between analytical model and music, that is all-important; it marks the point beyond which the music cannot be subsumed within the systematic and predictable. Theory, in other words, is the means by which the individual is rendered perceptible as an individual. And it follows from this that the 'illumination' of the individual, by which Treitler sets such store, is possible only to the extent that it is measured against (or explained in terms of) some kind of theoretical model. In Carl Dahlhaus's words, A piece of theory, explicitly or implicitly, provides the starting point for each analysis. The notion of a description without assumptions is a phantom; if it could be realized, it would not be worth the trouble."

Of course, Dahlhaus is using words differently from Treitler. For Dahlhaus, an analysis 'implies theoretic thoughts without aiming at a theoretic system. It attempts to do justice to the particular and unrepeatable; the general, the theory, is but a means and instrument for the attempt to understand the unique individual case." In short, Dahlhaus's 'analysis' means the same as Treitler's 'criticism', except that Dahlhaus is open about the role that theory must play in any

78 Treitler, 'History', 34.
80 Ibid.
attempt to account for the individual, whereas Treitler is not. Consequently Dahlhaus offers a continuum, an infinite gradation of shades, between what he calls 'theoretically and aesthetically oriented analysis', where Treitler sees a black-and-white distinction, a 'permanent difference between analysis and criticism'. And because Treitler sees what he calls 'criticism' as being fundamentally performative—a process leading to the experience of illumination shared between writer and reader—his black-and-white approach leads him to posit exactly the opposite of what he calls 'analysis'; hence the disjunction between theory and experience that Treitler conveys when he writes, again with specific reference to Schenker, that An analysis is a demonstration that, and how, a particular piece is an instance of a sound system whose conceptual structuring is described in a theory (it would correspond more or less to an explanation in science).

To assert that analysis is not performative—that it does not have meaning by virtue of what it does—is necessarily to assert that it has meaning by virtue of what it represents; there is no other alternative. So, for Treitler, any validity an analysis might have must derive from its status as an objective representation of reality, and this of course makes it an easy target for epistemological critique. What I would like to claim is that analysis should not be understood, or at least not infrequently write as if they were indeed engaged in the objective representation of some kind of reality. The most concise expression of this is Schenker's famous assertion that 'I was given a vision of the urlinie [sic], I did not invent it!'

But a better indicator, perhaps, than what analysts explicitly assert is the conclusions that they draw from their work, and in particular conclusions regarding aesthetic value. As Dahlhaus says, if 'no Ursatz is to be found notwithstanding persistent analytic efforts, then Schenker does not hesitate to issue an aesthetic verdict'; the basis of this is precisely Schenker's

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81 Ibid. 9. Similarly Fisher and Lochhead refer to 'theory-driven' and 'piece-driven' analysis, a distinction which they link with an earlier debate between Edward Cone and David Lewin (Analysis, Hearing', 6).
82 Compare Treitler's discussion of competence and performance ('History', 34). His insistence on the analysis/criticism dichotomy sits oddly alongside his insistence on the falsity of Schenker's analysis/hermeneutics (or absolute/referential) dichotomy; as he says, 'the very inability of the purists to maintain their purity is a clue to the mlsdirected nature of the dichotomy' (ibid.).
83 Treitler Music and the Historical Imagination, 310. It is interesting to see how Treitler uses words to lift Schenker out of his own context and inscribe him within the neo-positivist milieu of East Coast America in the 1970s (he is actually pastiching David Lewin); can you imagine Schenker speaking of the Ninth Symphony as 'an instance of a sound system'?
84 As trans. by Sylvan Kalib in Thirteen Essays from the Three Yearbooks "Das Meisterwerk in der Musik" by Heinrich Schenker. An Annotated Translation (Ph.D. disc., Northwestern University, 1973), 218; less memorably, if more accurately, trans. John Rothgeb as 'I apprehended the Urlinie, I did not calculate it!' (Schenker, Masterwork in Music, it. 19). A less concise but no less trenchant formulation comes from Wilhelm Furtwängler, according to whom' Schenker forged a platform, revealed a condition, that is objectively present, beyond all historical tests, beyond all simple subjective preferences, and which, properly grasped, will be just as demonstrably certain as other contemporary scientific judgments' ('Heinrich Schenker. A Contemporary Problem', Sonus, 6 (1985), 1-5, pp. 3-4).
85 Dahlhaus, Analysis and Value judgment, 9.
belief that his theory represents a reality external to the individual work. And the same applies to the articles by Lerdahl and Narmour which I discussed earlier; both writers issue aesthetic verdicts on the basis that their theories represent actual processes (or at any rate outcomes) of cognition. Aesthetic prescriptiveness, then, is a sure sign of what might be called the 'paradigm of representation'.

To draw aesthetic conclusions from an analytical model of music is to claim, whether explicitly or not, that the aesthetically significant aspects of the music are captured by the model. And that is exactly what, according to Dahlhaus, one should never claim: Aesthetic criteria,’ he writes, 'singly or jointly, never offer sufficient support for judgment of a musical work. Any attempt to base music criticism on flawless rationality would have to run aground or lose itself in sectarianism.'

What is revealing, however, is that at another point in the same book Dahlhaus makes exactly the kind of aesthetic claim that he here says should never be made. It comes in the context of an attack on attempts to reduce aesthetics to reception history. He writes:

It is an error to grant to a 'group norm' which considers a pop tune the essence of music and a Beethoven symphony a hollow din equal aesthetic privileges as to the opposite 'group norm'. The factual judgments underlying the 'group norms' are not equally founded. A listener capable of doing justice to a Beethoven symphony is generally equipped to cope with the musical issues of a pop tune, but the reverse is not true.

I do not know what specific kind of popular music, if any, Dahlhaus had in mind when he wrote this. But his argument turns on the assumption that the analytical categories appropriate to a Beethoven symphony, which can in general be extrapolated from conventional notation, are sufficient (more than sufficient) for the analysis of popular music; what he is in essence saying is that anything pop can do, Beethoven can do better. This assumption is of course wrong; it is notorious that many of the most salient aspects of popular music—timbre is only the most obvious—slip between the categories of notation-based analysis. (The point is not that Beethoven is better than pop—or, for that matter, the opposite but that they are different.) Dahlhaus, then, has fallen into the very trap he described: reducing the music to a set of criteria, and using these as the basis of an aesthetic judgement.

Where did Dahlhaus go wrong? His error is, in a sense, a linguistic one, in the same way that religious fundamentalism is, at core, a linguistic error. Fundamentalism arises from the false belief that language can circumscribe and contain reality, from which it follows that what cannot be said does not exist.

86 There is an obvious parallel between what I am calling the paradigm of representation and Wittgenstein's 'picture' theory of meaning; see Joanna Hodge, Aesthetic Decomposition: Music, Identity, and Time', in Krausz (ed.), Interpretation of Music, 247-58.
87 Dahlhaus, Analysis and Value Judgment, 34.
88 Ibid. 6.
Dahlhaus's error is the same: he assumes that what cannot be said in the language of common-practice analysis does not exist, and consequently issues an aesthetic verdict against popular music. It is in this sense that Schenker, Lehdahl, and Narmour (along with all other analysts who issue aesthetic verdicts) can be said to be fundamentalists.

But I would not wish this to be misunderstood. While I think we should always be suspicious of aesthetic verdicts issued by analysts, I do not mean to imply that analysis is misconceived by virtue of being framed within the paradigm of representation. Roger Scruton has written that music criticism (which, for him, subsumes analysis) 'consists of the deliberate construction of an intentional object from the infinitely ambiguous instructions implicit in a sequence of sounds'. In other words, it involves, if not exactly making the qualities of the music (to borrow Maus's words), then finding or inventing metaphorical constructions that represent salient aspects of it. And the key word here is 'metaphorical'; analyses represent music, but the mode of that representation is fundamentally metaphorical. This is not to deny that some analyses, some theoretical approaches, are more susceptible to empirical confirmation or refutation than others; music theory ranges from the scientific to the fantastic, and it is sometimes hard to know where to place a given approach on this axis (Schenkerian analysis is a conspicuous example). But there seems to be a general principle that the more 'scientific' an analytical approach is (in the sense of being open to empirical confirmation or refutation), the less well adapted it is for the complex, and often ill-defined, circumstances under which we use analysis to Interrogate music and our experience of it. For this reason the primary significance, or truth value, of analysis must lie in its potential for realization in the perceptual or imaginative terms of Lewin's 'poetic deeds'. An analysis, we might say, is like a promise: it is an action disguised as a statement of fact. And seen this way, the scientific truth value of analysis becomes at best secondary, and at times simply irrelevant. Because he insists on treating analyses as if they were bad science, and nothing more, Treitler misreads them in the same way as someone who complains that the events in a novel didn't actually happen. Historical facts are not ruled out of novels, of course. But they are not the basis of what Jeffrey Kallberg calls the 'generic contract'.

Paradigms are closed; what they cannot say, they deny. That is why I have associated the paradigm of representation with fundamentalism. But avoiding fundamentalism

90 Robert Gjerdingen refers in Ch. 7 to 'the manifest difficulties in attempting to apply rigorous methods to poorly defined, culturally contingent phenomena' (p. 165)--the point being, of course, that it is 'poorly defined, culturally contingent phenomena' with which music theorists are mainly concerned.
91 See DeBellis, 'Theoretically Informed listening', 280-1.
92 Far a parallel perspective on New Musicological misreadings of analysis (focusing on Lawrence Kramer), see 10018 Burnham. The Criticism of Analysis and the Analysis of Criticism, 19th-Century Music, 16 (1992), 70-6.
in talking about music does not mean that we have to get away from representation; indeed we cannot, because our language for music is a language of representation. What it means is recognizing that our language for music is not monolithic, but draws its signification from any number of alternative representations of music, each of which constitutes sound as a different intentional object. Each 'music view', as it might be called, captures different aspects of actual or potential experience; each allows generalization across a different range of contexts. If we have a problem with this linguistic pluralism, it arises from the general tendency to identify the representation with what is represented-in short, the tendency towards fundamentalism. The consequence is the positing of a dominant representation that denies the possibility of alternatives. And that is where what I have called a performative perspective comes in. If we think of analysis, or for that matter any musicology, in terms of what it does and not just what it represents, then we have a semantic plane that can accommodate any number of metaphorical representations of music. We can negotiate between different meanings, however different the representations upon which they draw. And the result is to alleviate the greatest danger attendant upon the alignment of words with music, which is that of premature closure.

V

In analysis, then, as in everything else, our words constantly threaten to run away with us. By way of conclusion, I shall cite a concrete example where, by invoking an implicit paradigm of representation, analytical language creates a meaning of its own, accomplishing cultural work that its author perhaps never intended. In a recent publication, Cynthia Folio describes how the playing of Thelonius Monk, Ornette Coleman, and Eric Dolphy is animated by polymetric tension. She shows how linear progressions and motivic repetitions combine with surface rhythms to articulate a multiplicity of metrical planes that are superimposed upon the underlying metre of the music. The following commentary on Thelonius Monk's recording of 'Bags Groove' gives a flavour of her approach:

Beginning in the third bar, the metric accents create a 3/4 against the basic 4/4 played by the rhythm section. (To add to the complexity, two of the quarter-note beats in Monk's superimposed 3/4 meter are grouped into three's by the quarter-note triplet figures.) This 3/4 against 4/4 is an expression of the ratios 4:3 (at the level of the bar ...), and 2:3 (at the level of the half note ...),

Wherein lies the paradigm of representation? Its explicit trace lies in the word

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94 Cynthia Folio. An Analysis of Polyrhythm in Selected Improvised Jazz Solos', in Elizabeth West Marvin and Richard Herrmann (eds.), Concert Music, Rock, and Jazz since 1945 (Rochester, NY 1995), 103-34.

95 Ibid. 113.
'expression': to say that the music 'expresses' the ratios 4 : 3 and 2 : 3 is to assign ontological priority to the abstract relationship as against its realization in sound. That may seem a lot to read into one little word. But the resulting image of Monk, Coleman, and Dolphy weaving their solos in and out of a hierarchy of metrical levels contributes powerfully to the sense of almost frightening complexity that Folio conveys when, for instance, she writes of one of Dolphy's solos that the proportion ... of 7:4 has already occurred several times as a motivic element. In the long, eleven-minute improvisation. At this point, late in the solo, he further subdivides this seven into three's, so that seven 3/8 bars are implied over the 4/4 (thus, the time signature of 21/8); in other words, four is divided by seven which is divided by three. And she adds that 'It is no coincidence that this solo is from Last Date, the last recorded album before his death, thus representing his most mature style'.

What is this analysis saying? Its overt content is straightforward enough. Folio is demonstrating what might be called the music's potential for perceptual realization, spelling out the various metrical constructions which it is capable of supporting, and aiming thereby to articulate the inner tension that the music conveys to the listener. One might say that she is showing how jazz musicians create local regularities, impressing the sense of an alternative or supplementary metre into the surface of the music. But this unproblematic formulation misses the dimension of meaning which the paradigm of representation brings to Folio's analysis. For deriving the musical surface from an underlying polymetrical structure—which is what is implied by saying that it 'expresses' polymetre—creates a much more mysterious impression: it is as if the musicians possess a rhythmic sensibility that enables them to track each metrical level separately and simultaneously, moving at will from one to another. Indeed, Folio reinforces this suggestion by citing a Ghanaian master drummer's statement that 'all master drummers are trained from childhood to hear all parts at once, not just one part at a time, or even the composite rhythm'. And she remarks that 'some non-Western cultures are apparently better at perceiving many rhythmic layers at once' (better, that is, than Westerners).

All the components for the cultural work to be accomplished by Folio's analysis are now in place: the emphasis on complexity, the interpretation of this complexity as arising from the realization in sound of an abstract polymetrical structure, and the suggestion that it involves a degree of sensitivity that can be

96 For an interesting perspective on such language that has yet to be assimilated into the mainstream of theoretinal thought, see Gerald Balzano, 'Measuring Music', in A. Gabrielsson (ed.), Action and Perception in Rhythm and Musk (Stockholm, 1987), 177-99.
97 Folio, Analysis', 128.
98 Ibid. 110. There is a parallel with the claim, in the Western musicological literature, that keen listeners can hear four or more independent contrapuntal lines; I have discussed this (with references) in Music, Imagination, and Culture, 35.
traced to the non-Western roots of jazz. (In the case of the Dolphy example, one might also note Folio's mention of the solo's unusual length, and the fact that it belongs to his last and most mature period—the late style, in other words.) What is taking place is, of course, an exercise in academic canon formation, and it has two rather contradictory components. One is the emphasis on the otherness, the exotic nature, of jazz improvisation; there is a parallel here with Kofi Agawu's observation that Western transcriptions of African music, with their multiplicity of shifting and superimposed time signatures, create 'an impression that ... confirms the complexity of this music, a complexity in turn necessary to the construction of its difference, its "exotic" status'. But the exotic easily becomes the marginal, and the major component of Folio's interpretation involves assimilating jazz improvisation firmly to dominant models of academic musical interpretation. Indeed, her final conclusion is that 'The growing number of analyses [of such music] confirm the notion that much of the motivic and structural coherence so characteristic of "composed" music is present in this improvisational art form'. We are left with a reassuring impression that Western analytical methodology—our analytical methodology possesses a truth value which crosses cultural boundaries; it must represent something that really is out there!

It is the paradigm of representation that is primarily responsible for all this cultural work. To say simply that jazz musicians sometimes play against the beat, creating the local sense of another metre, will not serve to admit their music to the academic canon, however complex the effects to which such practices give rise. To derive the surface of their music from an underlying abstract structure, on the other hand, is to render it directly comparable with the master-work tradition of Western tonal music; in essence Folio is constructing for jazz improvisation a metrical equivalent of the Schenkerian concept of 'creation from the background', with all its connotations in terms of genius and the music-theoretical canon. And the difference between these two strategies, which is definitive of the paradigm of representation, is the abstraction of structure from lived experience. Again, African music provides a useful comparison. John Chernoff asserts that, in the transcription of African polyphony, it is impossible 'to notate without assigning different metres to different instruments in the ensemble'. However appropriate as a description of the sound, such a transcription will inevitably give rise to the impression of unfathomable complexity to which Agawu refers; what sort of minds must these musicians have that they can internalize polymetrical structures beside which The Rite of Spring pales into insignificance?

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canoe? But there is a fallacy here. The transcription totalizes the experience of the individual musicians making up the ensemble; it abstracts the music from the social process in which it is embedded—the process of making music together through complementary perceptions and mutual accommodations. It creates the image of something that never existed as a reified, abstract structure, thus signifying as much by virtue of its difference as its similarity to the experience it stands for.

Like all languages, the language of analysis signifies simultaneously on multiple levels. Our words summon up representations that are always metaphorical (whatever else they may be), at the same time that they accomplish or register perceptual or imaginative experiences. Reading analyses for their combination of representational content and illocutionary force brings about an enhanced awareness of what we do, and what we can do, when we do theory. In this context it is worth remembering that the great abuses of science have generally resulted from the claim that science merely reflects what is out there; maybe the most useful sense in which analysis, theory, or musicology can be 'critical' is in the sense of being self-critical—of being actively aware, to repeat Bohlman's words again, of its prescriptive as well as its descriptive potential."

But there is another reason why being aware of what our words can do—that is, adopting a performative perspective—is indispensable in today's climate of analytical, theoretical, and musicological pluralism. The paradigm of representation, in so far as such representation is understood as more than metaphorical, brings with it that dogmatic partisanship that characterized music theory only a few years ago, when to believe in (for instance) Schenkerian analysis implied the obligation to reject all other approaches as false. If today, by contrast, we are content to let a thousand theoretical flowers bloom, then the only epistemological basis for this must be a conviction that each approach creates its own truth through instigating its own perceptions, bringing into being a dimension of experience that will coexist with any number of others. Performativity, in short, is the foundation of pluralism.

103 I would like this to be read in the context of Ch. 22, by Ralph Locke, and vice versa.
A business performance analysis indicates the further growth and the expansion. It gives a physiological advantage to the employees and also a planning advantage. In trend analysis, ratios are compared over time, typically years. Time-series analysis is applied when a financial analyst evaluates performance over time. Comparison of current to past performance, using ratio analysis, allows the firm to determine whether it is progressing as planned. Using multiyear comparisons can see developing trends, and knowledge of these trends should assist the firm in planning future operations. As in cross-sectional analysis, any significant year-to-year changes can be evaluated to access whether they are symptomatic of a major problem. Collection of econometric functions for performance and risk analysis. In addition to standard risk and performance metrics, this package aims to aid practitioners and researchers in utilizing the latest research in analysis of non-normal return streams. In general, it is most tested on return (rather than price) data on a regular scale, but most functions will work with irregular return data as well, and increasing numbers of functions will work with P&L or price data where possible.