

## **Border Crossings: A Commentary on Henkjan Honing's "On the Growing Role of Observation, Formalization and Experimental Method in Musicology"**

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**ABSTRACT:** In the early twentieth century systematic musicology, which was based on the comparative method, played a prominent role in the discipline: however it was appropriated by the Nazis and fell out of favour after the war. It was replaced by ethnomusicology and structuralist music theory, both of which emphasized the individual context (cultural or structural) and eschewed comparison between contexts. Both also developed an epistemology based on the generation of meaning through the act of "experiencing and understanding music" (Titon 1997: 87): this epistemology, characteristic of cultural musicology and theory (CMT) in general, is quite distinct from that of the cognitive sciences of music (CSM). The otherwise confusing variety of musicological practices subsumed under the category "systematic musicology", as set out in Honing's article on which this is a commentary, can be usefully seen in terms of two distinct dimensions, those of method and of epistemology. It follows from this that empirical methods are as consistent with, and as potentially valuable to, CMT as they are to CSM, and that *EMR* has the potential to reach both constituencies.

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ONE of the good things about a new journal like *Empirical Musicology Review* is that it stimulates efforts to define, or redefine, the field. In his article "On the growing role of observation, formalization and experimental method in musicology" Henkjan Honing situates "empirical" musicology within the context of "computational" and "cognitive" musicology: these are the three main headings into which his article falls, and he links them to observational, formalized, and experimental approaches to the study of music. Moreover he sees these as collectively making up "systematic" musicology—a term that has a much better defined meaning in continental Europe than it does in English-speaking countries, where it is more likely to be thought of as a throwback to the days of Guido Adler or, at least, Charles Seeger. Like Adler, Honing understands "systematic" musicology in negative terms—it is what historical musicology leaves out—and, as he sees it, the twentieth century has witnessed the development of systematic musicology from a marginal position within the discipline to an increasingly central one, largely under the influence of ethnomusicology. This is the "growing role" to which his title refers.

It's also one of the good things about attempts to define or redefine fields that people see them from different perspectives, depending on where they are coming from. The purpose of these comments, then, isn't to critique Honing's vision of the field but rather to offer some different perspectives and to compare notes. Having said that, however, I would be inclined to turn Honing's history of systematic musicology on its head, and I'll explain this at some length because it grounds my perception of the current situation. If in Adler's own work historical musicology played a more significant role than systematic musicology, each occupied an equally prominent place in his topography of the discipline, and the broad range of systematic approaches as Adler envisaged them—theory, psychology, aesthetics, pedagogy, ethnography—was certainly prominent in the discipline as it was understood and practised in the early years of the twentieth century. It was moreover through systematic musicology that the discipline was most closely related to developments in other fields, because of the prominence of the comparative method across the human sciences. The first item in Adler's sketch of systematic musicology was "tabulation of the chief laws applicable to the various branches of music", and its central project was the comparison of the widest possible range of musical artefacts and practices, with a view to extrapolating those universal

aspects of music that directly reflected essential attributes of humanity, and distinguishing them from those aspects that were historically or culturally contingent.

It is only in the last few years that such issues have come back onto the musicological agenda: one might say that there was a fifty-year hiatus in systematic musicology as a result of the manner in which the comparative project was hijacked by the totalitarian regimes of 1930s-40s Europe, with the idea of the "essential attributes of humanity" being glossed in racial terms. (The work of Pamela Potter and Ludwig Holtmeier has shown the extent to which musicology, theory, and music psychology were all pressed into the service of racial ideology under the Third Reich.) The result was the post-war reaction embodied in the establishment of the new discipline of "ethnomusicology", defined in opposition to the contaminated project of comparative musicology: the emphasis was now on the need to understand any given musical practice "vertically", that is to say in terms of the constructions of personal or social meaning obtaining within the particular culture of which it formed part. And if musical practices, and their traces in the form of artefacts, only acquired meaning through their relationship to that culture, then making comparisons between cultures was both intellectually and ideologically illegitimate. The kind of comparison with which empirical methods were primarily associated was in effect declared off limits.

Empirical approaches did survive in ethnomusicology, of course: one way to trace this might be through the fortunes of Charles Seeger's melograph, another through the comparative studies of musical style undertaken by Alan Lomax, Mieczyslaw Kolinski, or Helmut Schaffrath. But such work was marginal: ethnomusicology defined itself in relation to the idea of fieldwork, with the idea of participant observation (where the researcher is a participant in cultural practices at the same time as an ethnographer of them) developing into the "new fieldwork", with its emphasis on reflexivity. "Fieldwork is no longer viewed principally as observing and collecting (although it surely involves that) but as experiencing and understanding music", Jeff Todd Titon (1997: 87) writes, and he continues: "The new fieldwork leads us to ask what it is like for a person (ourselves included) to make and to know music as lived experience". This emphasis on the generation of meaning through the very act of doing fieldwork lies at the furthest possible remove from the kind of detached observation and comparison which had given empirical approaches a role within prewar systematic musicology.

There was a curiously similar development, and around the same time, in music theory—which in North America might be considered the main form taken by systematic musicology, though one skewed towards the study of musical scores. Attempts to characterize different musical styles through comparative analysis (again hijacked by the Third Reich) gave way not only to a focus on individual compositions, but also to an insistence that all aspects of them must be understood in terms of—and only in terms of—their particular structural context. Just as in the case of ethnomusicology, this is a "vertical" approach (hence the ubiquitous music-theoretical metaphor of "depth"), with comparisons between similar "surface" configurations in different compositions again being ruled off limits. Just as, for ethnomusicologists, no musical practice had meaning outside its specific cultural context, so for music theorists no compositional configuration had meaning outside its specific structural context.

But there was a striking difference. Whereas the empirical and comparative approaches of Lomax, Kolinski, or Schaffrath became increasingly marginalized as ethnomusicology developed, the hard-edged, often formalized approaches of Ivy League theorists like Milton Babbitt and David Lewin lay at the very heart of music theory's sense of its own disciplinary identity. Given this, and Babbitt's (1972: 3) famous proclamation that "there is but one kind of language, one kind of method for the verbal formulation of 'concepts', whether in music theory or in anything else: 'scientific' language and 'scientific' method", nothing might appear more self-evident than the link which Honing makes between such theorists and scientific positivism when he places them in a lineage headed by Popper. Yet this is a case where appearances are deceptive. In a review of Felix Salzer's *Structural Hearing* first published in 1952, Babbitt (2003: 24) wrote that "the test of the validity of Schenker's conceptions is not whether 'one hears that way' but whether, after having become aware of these conceptions, the listener does not find that they may not only codify his previous hearing but extend and enrich his perceptive powers by making listening more efficient and meaningful, by 'explaining' the formerly 'inexplicable', and by granting additional significance to all degrees of musical phenomena". The point of analysis, Babbitt is saying, is not to describe or account for how you hear the music, but to lead you to hear the music in richer and more meaningful ways. Forty years later Lewin (1993: 62) developed this idea at length in a study of Stockhausen's *Klavierstück III* in which he argued that "if the world is not in some way sensibly different as a result of the artistic deed, then I do not see in what sense one can say a work of art has transpired", and argued that analysis should be a means by which this is achieved, by which perception is expanded in creatively unforeseen ways. Analysis,

in short, becomes like the new fieldwork: a mode of "experiencing and understanding music" through which meaning is generated.

The point I am driving at is that method needs to be distinguished from epistemology. Observation, formalization, and experimentation represent different ways of capturing and interpreting data, which can be located on a continuum from the deductive to the inductive. But this is something quite different from epistemology, that is to say the purpose for which the methods are deployed, the kind of knowledge to which they are intended to contribute—and my claim is that separating out these two different dimensions may help to clarify what can seem the very confusing relationships between the different musicological practices referenced by Honing's many descriptors (not only observational, formal, and experimental but also empirical, computational, cognitive, and systematic). An example is when, following David Huron, Honing introduces the "new empiricism" and then draws a contrast between it and the "new musicology": "the contrast", he says, "could not be bolder, a contrast reminiscent of the methodological differences between the humanities and the sciences". But then he goes on to say, in an apparent non-sequitur, that "in the last decade these two movements seem to have merged into a revitalized systematic musicology": how, one might ask, is this merger possible given such opposed methodologies? A possible answer may lie in denial of the premise: the more important distinction between empirical and new musicology—or more generally between what I shall call the cognitive sciences of music (CSM) and cultural musicology and theory (CMT)—perhaps lies not in the methodological but rather the epistemological differences between them.

The term "empirical" may be more readily associated with the observational and experimental methods of CSM but is in reality equally applicable to the archival or textually-based research on which CMT is built: both CSM and CMT are evidence-based projects, even if they use their evidence in different ways. However there is a more or less clear epistemological difference between them. CSM is grounded on a conception, however tentative, of objectivity (experiments give consistent results because of the physical or psychological regularities once confidently termed "natural laws"). CMT, by contrast, is grounded on intersubjectivity, as illustrated for example by Marion Guck's (1994: 62) analytical "(thought) experiments": she puts forward an interpretation of the second movement from Mozart's G minor Symphony (K. 550) in which the irruptive C-flat at bar 55 is likened to an immigrant, assimilated by stages within the melting pot of the "common-practice" style as the movement progresses. Her aim is not of course to show that Mozart wrote a symphony about immigration, but to set out a way in which the music may be heard as meaningful, and her interpretation is not merely subjective but intersubjective in that other people may also choose to hear the music that way. (In that case the "(thought) experiment" is successfully replicated.) Just as in the case of Titon or Lewin, the knowledge that is gained takes the form of "experiencing and understanding music": understanding is not separable from experience.

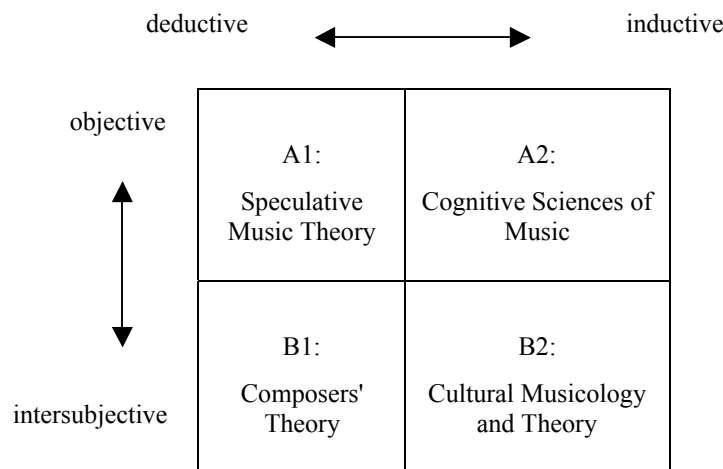


Fig. 1. Schematic representation of approaches to music

I can represent what I am getting at schematically. In Figure 1, CSM and CMT are shown as opposed on the epistemological (vertical) axis, since the former is grounded on objectivity (A) and the latter on intersubjectivity (B). But they are aligned with one another on the methodological (horizontal) axis, since as I have explained each is substantially empirical, and in this way both are opposed to the two further approaches to music shown in the first column. By "speculative music theory" (A1) I mean the kind of thinking about music associated, for example, with Robert Fludd: music was seen as a vehicle for comprehending fundamental cosmological principles, but "music" in this sense was defined in terms of a numerological tradition traced back to Pythagoras, and not in terms of the actual practices of real musicians ("musica mundana", not seen as an appropriate field for speculative thought, rather in the same way that Hanslick did not see emotional responses to music as an appropriate field for aesthetic thought). In other words empirical reality was only admitted to a minimal degree: that is why such theory was speculative, and why it appears in column 1. At the same time, the theory aspired to a truth conceived as lying beyond the individual or society, and in that sense objective, which is why it appears in row A. It is however worth pointing out that, in its numerical expression, this kind of speculative music theory was highly formalized, and this shows that, just as we should avoid conflating method and epistemology, so we should avoid conflating the empirical and the formal. Properly speaking formal/informal might be incorporated within Figure 1 as a third dimension: the proof of this is that it is easy to imagine more or less formalized versions of all four regions of Figure 1. Indeed what I have called "composers' theory" (B1) is a particularly clear demonstration of this: the serial "theory" of the Viennese school before the Second World War and the Darmstadt school after it is highly formalized, yet substantially ungrounded in empirically demonstrable percepts. Regarded according to the criteria of CSM, this is simply bad theory (which is why it is in column 1). But those are not the right criteria, for the purpose of "composers' theory" is to give rise to unique and meaningful ways of hearing that are inseparable from the materials heard—and that can in consequence be incorporated within compositions designed to leave the world "in some way sensibly different", to repeat Lewin's words. Once again it is a matter of understanding music through the experiencing of it, and that is why "composer's theory" is in row B.

I don't want to be misread. I don't mean to suggest that there are four and only four possible ways to think about music as shown in Figure 1 (or eight, if we add a dimension of formal/informal). On the horizontal axis there are certainly intermediate values (we might want to rate Schenker and Riemann somewhere around 1.5), and music theorists have a habit of slipping imperceptibly from A to B or vice versa, or even trying to ride both horses at once (Cook 2002). My point is simply that empirical musicology takes its place within an at least two-dimensional field, and that if we maintain epistemological distinctions rather than conflating them then it becomes possible to conceptualize productive interactions between them. I'll give two examples. The first is familiar: CMT, with its less exacting standards of evidence and verification, may provide a useful source of hypotheses to be tested and, if confirmed, subsumed with CSM. Or at least that is how the relationship is often portrayed, as if it were a transition from left to right in Figure 1: I would wish instead to see it as a movement on the epistemological axis, a translation from one conception of the nature and use of knowledge to another.

Nor would I wish it to be thought that the direction of movement is always from B to A, so I will conclude with an example of movement in the opposite direction. The "Tonalities" software developed by Anthony Pople (2004) immediately before his untimely death is a modelling system which takes as its input a simplified score of the music to be studied and a preliminary segmentation of it. Built into the system is the ability to identify a very large number of pitch-organizational schemes, ranging from common-practice scales and harmonies to neo-Riemannian and set theory; it draws as much on the work of Krumhansl and Temperley as of Forte and Cohn. Through adjusting what are called the Language Settings, the analyst can "tune" the system to recognize certain schemes and ignore others, following which "Tonalities" works through the music, evaluating how far the analyst's original segmentation is consistent with the settings he or she has selected. The process is an iterative one, with the analyst repeatedly refining the settings and so arriving at a closer conception of exactly what pitch schemata are contributing to the sense of continuity or discontinuity expressed through the segmentation. (The guiding principle behind the software is that there is no such thing as "tonality", but that different combinations of schemata result in an indefinite number of distinct "tonalities"—hence the software's name.) It is, in short, a computer-aided version of how Lewin conceived theory: as a way of extending or expanding received modes of perception, a generation of new ways of "experiencing and understanding music". Empirically based knowledge is being drawn from CSM and translated across the epistemological borderline to CMT.

Nor, finally, do I want to overstate the clarity of this borderline: most borders, other than the most intensively policed, are hard to make out on the ground (and no frontier built on the concept of objectivity can be considered secure.) Indeed I hope that one of the effects of *EMR* will be to encourage trafficking across this border, because—for the reasons I outlined in the first part of this commentary—CMT has a far more limited history of the use of empirical methods than CSM, and hence much to gain from being part of a free trade area. Under such circumstances it might be tempting to call for full political union and the abolition of borders. Yet that might be a mistake. As is well known, the current burgeoning of CSM had its origins in music psychology, where the application of empirical methods attracted the attention of many working over the border in CMT: overwhelmingly beneficial as this convergence of interests was, it resulted in what—in a much quoted phrase—Eric Clarke (1989: 2) described as a "rather unstructured 'leakage' between the disciplines". It wasn't, I'm sure, the trafficking of methods that gave rise to this unstructured quality: it was the epistemological assumptions that adhered to them but were not always recognized for what they were. In the federal musicological community that embraces CSM and CMT, we may work with the same methods, but on different assumptions and with different aims: rather than conflating these assumptions and aims, the route towards productive interaction is via an informed recognition that there are different but equally valid conceptions of the nature and use of knowledge about music. *EMR* will serve the widest constituency and have the most impact if it is on the one hand methodologically focussed, but on the other epistemologically inclusive.

#### REFERENCES

- Babbitt, M. (1972). Past and present concepts of the nature and limits of music. In: B. Boretz and E. T. Cone (Eds.), *Perspectives on Contemporary Music Theory*. New York, Norton, 1972, pp. 3-9.
- Babbitt, M. (2003), ed. Stephen Peles. *The Collected Essays of Milton Babbitt*. Princeton, NJ: Princeton University Press
- Clarke, E. (1989). Mind the gap: formal structures and psychological processes in music. *Contemporary Music Review* Vol. 4, pp. 9-22.
- Cook, N. (2002). Epistemologies of music theory. In: T. Christensen (Ed.), *The Cambridge History of Western Music Theory*. Cambridge: Cambridge University Press, pp. 78-105.
- Guck, M. (1994). Rehabilitating the incorrigible. In: A. Pople (Ed.), *Theory, Analysis and Meaning in Music*. Cambridge: Cambridge University Press, pp. 57-73.
- Honing, H. (2006). On the growing role of observation, formalization and experimental method in musicology. *Empirical Musicology Review* Vol. 1, No. 1, pp. 2-6.
- Lewin, D. (1993). *Musical Form and Transformation: 4 Analytic Essays*. New Haven: Yale University Press.
- Pople, A. (2004). Using complex set theory for tonal analysis: an introduction to the Tonality project. *Music Analysis* Vol. 23, pp. 153-94 [published 2005]
- Titon, J. T. (1997). Knowing Fieldwork. In: G. F. Barz and T. J. Cooley (Eds.), *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology*. New York: Oxford University Press, pp. 87-100