Unplayed Melodies: Javanese Gamelan and the Genesis of Music Theories
By MARC PERLMAN
Berkeley, CA: University of California Press, 2004
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ALTHOUGH CONSIDERATIONS OF cross-cultural psychology, cognitive anthropology, and ethnomusicology inform and enrich the research and commentary typically published in journals like Music Perception, their direct appearance in these pages is an infrequent occurrence. One might suppose that ethnomusicological research focusing on highly contextualized musical performance and on musicians’ implicit versus explicit knowledge would provide welcome sources of experimental data for theories of music perception and cognition. One might equally suppose that modeling of psychological and neurological processes underlying musical behavior would form a helpful theoretical substrate for investigating the cognitive anthropology of music. But the mainstreams of ethnomusicology and psychomusicology appear mostly to ignore each other. To find where the action is, one typically has to look at the cutting edges.

Marc Perlman’s Unplayed Melodies is a serious attempt to engage both mainstream ethnomusicological research and the theoretical (but not experimental) realm of music cognition, and to initiate a conversation that could lead in very fruitful directions. This book is the most recent of a stream of publications by non-Indonesian scholars of Javanese gamelan music that directly or indirectly touch on cognitive and perceptual issues (e.g., Bakan, 1999; Brinner, 1995). In addition, a large number of both introductory descriptions (e.g., Lindsay, 1992; Sorrell, 1990; Tenzer, 1991) and highly specialized research monographs (e.g., Becker & Feinstein, 1984; Keeler, 1987; Sumarsam, 1995; Sutton, 1991) are available. The discography of currently available Javanese and Balinese gamelan performance is quite extensive.

As incidental background, some readers of Music Perception may be surprised to learn that there are more than 150 functioning Indonesian gamelan ensembles in the United States alone, and at least that number scattered throughout Europe, Asia, and Australia. Most, but not all, reside at institutions of higher learning, and their number is growing each year. Some fifty plus years after such ensembles—in residence began to appear outside of Indonesia and The Netherlands, there are now many thousands of non-Indonesian students of Javanese gamelan—performers both current and alumni—whose exposure to performance practice has constituted a rich but jarring test of assumptions about what music is, how it works, and how it relates to its cultural context. More significantly, expert level knowledge and skill of this tradition is displayed on a daily basis by hundreds of non-Indonesians. A thriving listserv-based international newsgroup, “Gamelan,” has a large and growing active membership. Considering how very different this musical tradition is from any other tradition outside of Southeast Asia, its worldwide popularity is at least surprising and perhaps even astounding.

Perlman’s stated purpose in this volume is to explore how theories of implicit rule-based melodic behavior invoked by some teachers and scholars of traditional Javanese gamelan music can “enlarge our understanding of the nature of musicians’ thinking about their own music, and to focus our attention on the creative aspect of this thinking—an aspect that has received little attention in the past” (p. 3).

In short, Perlman is out to: (1) demonstrate how derivations of rules governing melodic composition and performance (“melodic guidance”) emerge from the theorizing and musical practice of skilled musicians; and (2) indicate what we can learn about musical creativity when those implicit theories run afoul of real world counter examples and other unexplained complications.

The reader is quickly engaged, since Perlman begins with a brief discussion of how to represent his musical examples notationally. Such choices are always compromises to various audiences, and they can be uncomfortable. This is particularly true for communicating information about Javanese gamelan compositions to those unfamiliar with the tradition. Perlman is straightforward and candid about the costs and benefits of trying to match up different conventions of representation, but choices must be made and he does so. The discussion makes for a thoughtful introduction to a class on notation and communication, and that is valuable enough. (I would personally be interested in knowing from readers of this journal whether the choices he made work well. In an extended personal communication with the author, we discussed these problems at length and we arrived at divergent predictions.)
The book is divided into three main sections, framed by an introduction that provides theoretical context for the undertaking and a conclusion that both points the way to further research and anticipates cross-disciplinary study of creative thinking in music.

The first section of the book consists of one chapter, “Cognitive Preliminaries.” Perlman’s goal here is to describe how Javanese notions of “melodic guidance” (or “implicit melodies”) can more generally point us to innovative musical thinking with abstract musical ideas. It should come as no surprise to readers of this journal that his exploration of underlying rules governing surface musical behavior invokes concepts like schema, analogical thinking, heuristics, and multifunctionality. There is a provocative discussion of how global cultural schemas are not perfectly integrated. Indeed, areas of knowledge that show inconsistencies, and which therefore suggest disparate models, point us to “loosely connected cognitive islands of coherence” (p. 17), which Perlman labels as “cognitive disarticulation” or “disarticulated knowledge.”

With this notion of disarticulation in hand, Perlman directs our attention to two specific dimensions of heterogeneous knowledge. One is classical (rule-based demarcated with defining features) vs. non-classical (family resemblances with graded, fuzzy boundaries) categories (viz. Spalding & Murphy, 1996). The second is explicit (learned by tuition) vs. implicit (acquired through informal observation and imitation) knowledge (see Dienes & Perner, 1999). While both implicit and explicit knowledge contribute to music culture and can be closely intertwined, some cultures emphasize explicit knowledge more than others. Perlman’s point, though, is that these two sources of musical understanding are sometimes not consistent. Explicit rules can be denied by actual behavioral norms, and it is exactly this issue, in the domain of gamelan melody, that Perlman intends to explore.

Since a key task of music cognition is to study and make explicit the implicit knowledge of performers and listeners, a description of how this has been done in a non-Western musical domain is promising, indeed.

The chapter concludes with a brief survey of cognitive processes underlying creative thinking, focusing especially on analogical and metaphorical thinking (viz. Gentner, Bowdle, Wolff & Boronat, 2001; Gibbs, 1996). The discussion here is not comprehensive (it feels to this reader that editorial considerations intruded on the author’s intended discourse; hence, much of the recent decades’ worth of psycholinguistic and cognitive research is not reviewed). However, Perlman’s interest in intra-domain, rather than cross-domain, analogical mapping clearly emerges. This becomes central to the efforts that follow to document implicit theories of rules governing melodic behavior in Javanese gamelan.

The second section of the book presents three separate implicit theories of “melodic guidance” in Javanese gamelan, and consists of six chapters. The gamelan ensemble of Central Java is a highly complex orchestral tradition learned and performed mainly via an oral tradition, although there are modern conservatories that teach the tradition using a cipher notation and an adaptation of western conservatory pedagogy. “A Brief Introduction to Karawitan” introduces readers to both the broad and narrow contexts of gamelan performance, the Kepatihan cipher notation, and the first level of gamelan music theory. “Karawitan as a Multipart Music” helps readers learn how instrumental parts interrelate in performance.

Actual performance emerges from performers’ knowledge of the specific composition, focusing especially on understanding how a particular instrument’s highly constrained and idiomatic repertoire instantiates a particular composition’s melodic progress. This knowledge is complex, multidimensional, and takes many years of study to acquire. Considerations of compositional size, pedagogical tradition, mode, metric density, between-instrument relationships, regional variation, traditional vs. contemporary compositional practice, and significant extramusical factors all weigh on a performer’s choice of what melodic line to play at a given point in performance.

But attempts to systematize this knowledge, especially concerning the playing of melody, have been only moderately successful, since existing formulations are fraught with important counter examples in actual performance. Perlman carefully illustrates the categories of these collisions of practice vs. theory, asking who in the ensemble provides the guidance when the rules are ambiguous about what to do? And, if such leadership can be ascertained, how do choices get made?

“The Balungan as Melodic Guide” provides a series of examples illustrating how one abstract notion of melody in gamelan—balungan—has emerged as a central and highly debated focus of melodic guidance. Relying on it as either a predictor of melodic line or as a prescription of what to do generates both clarity and obscurity, consistency and irregular special cases. But musicians do rely upon it as a point of reference. What can we learn from how Javanese musicians talk about balungan and the source of melodic guidance?
In “Theorizing Melodic Guidance,” and “Three Concepts of Unplayed Melody,” Perlman introduces the discourse of three indigenous musicians who grapple with this issue. Their formulations of the existence of an underlying, implicit, “unplayed” melody can generate highly idiomatic surface performance is related less to generative linguistics than to the notion of “emergence”—that is, to the use of metaphor. Although I will not go into detail here, I found the author’s discussion to be thoughtful, informed, and very careful. His evidence is taken from seven years of field notes as well as published work by the musician-theorists under discussion. Each of the three theoretical approaches must contend with how and where theoretical coherence breaks down in the face of divergent performance practice. They illustrate how the effort of making implicit knowledge explicit can inform our understanding of musical practice, but only just so far, while providing examples of the role of creative and analogical thinking in music.

From the perspective of music cognition, one immediately imagines developing a model that would take a significant sample of the known corpus of traditional Javanese gamelan compositions and all the related instrumental and vocal parts, extracting a set of rules for “melodic guidance,” and then testing those rules on other examples within the corpus. When irregularities and divergences appear, do they mirror the difficulties encountered by the above theories, or are they different? And can the model be improved to handle the outlying datapoints?

In the chapter, “Implicit-Melody Concepts in Perspective,” Perlman summarizes his findings in this section of the book. He argues that “implicit-melody concepts are creative responses to the irregularity of melodic guidance in Javanese music . . . attempts to articulate . . . [theorists’] implicit knowledge and give it coherent and consistent form” (p. 170). Their variety indicates to Perlman that creative thinking processes are at play, and he wonders whether similar processes can be discovered in other, non-Indonesian musical traditions.

The final section of the book is Perlman’s account of how intra-domain analogical thinking can be found in the emergence of Western harmonic theory. In “Patterns of Conceptual Innovation in Music Theory,” he explores how early formulation of the concepts of “root-chord” and “harmonic progression” manifest conceptual change through concept extension and analogy. His is an informed and detailed analysis, but seems too brief and occasionally choppy for this volume. Again, I suspect the role of editorial imposition here. (Perlman, in press, has pursued this topic in depth elsewhere.)

This volume’s conclusion is a beautifully written plea for cross-disciplinary study, particularly between cognitive psychology, cognitive anthropology, and ethnomusicology. Perlman posits how further exploration of intra- and extra-domain analogical thinking might inform the discussion of other issues in traditional Javanese gamelan practice, such as the concept of pathet (loosely translated as “mode”), as well as musical concepts and practice in traditions far removed from Indonesia. But he is most eloquent when speaking to the thorny ethnotheoretic issues of “insider” and “outsider” that continue to bedevil modern ethnomusicological research and scholarship, where post-modern criticism and the politics of post-colonial redress continue to take hostages. “Is there any sense left to the distinction between insider and outsider viewpoints?” he asks. “Once we recognize that knowledge is not a single thing, but comes in many varieties, we can see that the answer to this question cannot be a simple yes or no” (p. 197). To Perlman, ultimately it makes no sense to replace the imposed authority of outsider formulations of implicit cultural knowledge with the tyranny of the insider’s word. There is no sure route from implicit to explicit knowledge; the path is always creative and analogical, sometimes metaphorical.

There have been voices in our recent past who have sought to encourage the cross-cultural study of cognitive process as opposed to content (including efforts by myself and colleagues; see Dowling & Harwood, 1986; Harwood, 1976). This volume, by a leading ethnomusicological scholar, exquisitely written and cogently argued, constitutes a new and eloquent plea, and suggests some ways in which the endeavor might be accomplished with sensitivity and grace. Standing alone, it is a valuable addition to the understanding of how cognition and creativity take place in cultural context. Consider what this book might have offered to our various fields had Perlman’s ethnographic and musical expertise been paired with a cognitive scientist’s insight into experimental test of theory and representational modeling. That is something to look forward to with anticipation and excitement!

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References


