Martin Clayton, Byron Dueck & Laura Leante (editors), *Experience and Meaning in Music Performance*. New York: Oxford University Press, 2013. ISBN 978-0-19-981132-8 (hardback) \$60. ISBN 978-0-19-981131-1(paperback) £18.99.

How might empirical musicology come into conversation with other ways of researching music? Discussions about interdisciplinarity in music studies have animated the pages of this journal since its first issue. Of particular concern have been questions about the possible relations between systematic, experimental, scientific, formalized or statistical approaches for studying music and other research methods, such as ethnography. Some of these discussions have involved attempts to classify and distinguish between different methodologies, or to locate them within broader historical trajectories in the study of music (Cook, 2006; Honing, 2006; Huovinen, 2006). Others have considered the advantages of collaboration between scholars with different disciplinary perspectives (Clarke, 2006; 2009; Clayton, 2009), yet others the difficulties and miscommunications that such research necessarily entails (Becker, 2009a; Janata, 2009). These have occurred in the context of a broader scholarly conversation on the role of empiricism in music research, for example in Nicholas Cook and Eric Clarke's seminal text *Empirical Musicology* (2004), and in two collections of essays in the journal *Ethnomusicology* (Becker, 2009b; Titon, 2009; Bakan, 2009; Lawson, 2012; Becker, 2012; Harwood, 2012; and Zbikowski, 2012).

Martin Clayton, Byron Dueck and Laura Leante's new edited volume *Experience and Meaning in Music Performance* (2013) contributes powerfully to these ongoing debates. Bringing together the results of a sustained collaborative project, it showcases a variety of interdisciplinary approaches to studying music, many of which straddle the uneasy border between the sciences and the humanities. The editors take an open-minded, ecumenical approach to different, competing methods of studying music; their focus is on bringing together different approaches productively, rather than weighing up the relative merits of each independently. Consequently, the book does not get bogged down in disciplinary soul-searching, but instead demonstrates the merits of what Eric Clarke labels "pragmatic bricolage" (2006, p. 31), in which empirical methods form one part of a varied toolkit for studying music.

Each chapter presents a different kind of interdisciplinarity. The editors characterise this as the outcome of the contributors' shared "commitment to learning from, and speaking to, as wide a range of music scholars as possible" (p. 15). The result is a diverse collection of essays, varied both in terms of the different musical traditions the contributors write about (North Indian classical music, jazz, Afro-Brazilian Congado music, alternative rock bands and Manitoban Aboriginal music) and also in terms of the research methodologies they employ. The editors' view (and I agree) is that this pluralism is a strength, highlighting possible relationships between "a remarkable variety of disciplinary and methodological vantage points" (p. 15).

One factor unites these diverse studies: each includes some ethnography within its own, unique, interdisciplinary mix. The editors attribute this in part to their "disciplinary bias" (p. 15) as ethnomusicologists. This is, however, a constructive bias: one major contribution of this book is to argue, by demonstration, for the importance of situating musical research of various kinds (e.g. analytical, empirical) within an ethnographic context. In every case, data obtained through ethnography complements, enriches and helps to make sense of the other types of data the contributors use. The collection is also knit together by an overlapping set of key themes, which recur variously in different places in the book. These include entrainment, embodiment, gesture and attention to the pragmatics of interaction in performance. Reading the book from start to finish, one visits and re-visits these themes from different angles, so that the picture of each develops gradually, accumulating in layers.

The introduction sets out the overall agenda of the book: there, the editors explain that they conceive of the volume as organised around the three concepts, "performance", "experience" and "meaning", which they understand in particular ways. In highlighting performance, they signal their interest in the pragmatics of "actual instances of music making" (p. 3), rather than some "model, ideal or product" (p. 1). For example, they are interested in the interaction that occurs between musicians while they are performing; in listeners' experiences; and in how musical performance can constitute "social action" (p. 4). This emphasis reflects typical ethnomusicological concerns; it also situates the volume in the aftermath of what Nicholas Cook has called the "performative turn" in musicology (2008, p. 55-61). Meanwhile, the editors use discussions of meaning and experience to draw attention to issues of embodiment. They are interested in the "corporeal nature of musical performance" (p. 5): in how music is experienced in and through the body (p. 5) and in music's embodied meanings (p. 7). Furthermore, they draw attention to links

between, on the one hand, experiential and embodied aspects of music and, on the other, the discourse surrounding musical performance, writing of discourse as "a practice that both inflects and is inflected by corporeal experiences of music" (p. 2). Their understanding of music thus emphasises aspects of social mediation, alongside an attention to performing and listening bodies.

Three of the chapters deal with issues of entrainment. After having announced the topic briefly in the introduction, the first chapter proper (Chapter 2), by Clayton, addresses musical entrainment in depth. This chapter is a valuable introduction to the latest research on entrainment from one of the foremost scholars of this phenomenon. Clayton's particular focus here is on the potential for making sense of entrainment in terms of dynamical systems theory. The chapter covers a lot of ground. In a few short pages, Clayton probes possible sources of contention between ethnomusicologists and scientists; summarises the current state of research on musical entrainment; considers prior uses of dynamical systems theory in the social sciences; theorises three "levels" for studying entrainment ("intra-individual", "inter-individual" and "inter-group" (p. 30)); and, finally, considers the benefits of interdisciplinarity in the study of entrainment. Particularly valuable is a table in which he compares "ethnomusicological", "dynamical" (that is, deriving from dynamical systems theory) and "interdisciplinary" accounts of entrainment (p. 37), demonstrating the richness and the advantages of the interdisciplinary position. As Clayton has argued elsewhere, including in this journal (2009), the chapter makes a strong case that entrainment is an especially fruitful area for putting ethnography into conversation with empirical research.

Mark Doffman's chapter (Chapter 4) returns to entrainment, this time in a consideration of how it might occur in jazz performances. Doffman is interested in how the phenomenon of entrainment can help in theorising the elusive, much-debated concept of "groove" in jazz. In order to address this, Doffman uses both quantitative data on the relative synchrony of musicians during a single performance, and also interviews with those musicians about their experiences of performance. This allows him to highlight some of the musical and social complexities of feelings of "groove": describing this as "an active, social construction within a musical culture", involving a certain "quality" of "co-temporality" (p. 83), he highlights how musicians can "play with their mutual entrainment", such that "groove" entails "more than just synchrony" but also types of "permissible asynchrony" (p. 84).

Glaura Lucas (Chapter 5) takes on issues of entrainment from yet another angle, as part of her rich social and musical analysis of Afro-Brazilian Congado rituals. Her study highlights the diversely meaningful nature of the sonic practices of Congado, implicating metaphors, myth, bodily experiences, religious understandings and the organisation of space and time. The empirical research behind Lucas' discussion of entrainment is presented more fully in an article in a previous issue of this journal (Lucas, Clayton and Leante, 2011); this chapter contributes a vibrant ethnographic discussion to complement this earlier study. Unusually, this example presents a case in which social cohesion relies on *avoiding* musical entrainment in certain circumstances: when a group of performers manages to keep its tempo independent of other groups with which it is in close proximity, thus "[resisting] the temporal forces that tend towards entrainment", the players can thereby "express spiritual power, unity and group identity" (p. 103).

Musical embodiment is another important theme in this book. As with entrainment, this is dealt with in three separate chapters. Nikki Moran's contribution, "Social Co-Regulation and Communication in North Indian Duo Performances" (Chapter 3), like the chapters on entrainment, again combines ethnography with empirical research (in this case, including statistical techniques). Moran uses her interdisciplinary approach to investigate the subject of gestural and nonverbal communication between musicians during performances. Based on video recordings of seven duo performances of North Indian classical music, she examines a variety of the physical gestures that musicians employ in performance. Moran's ethnography helps her to make sense of her observations, including considering the effects of what she calls "socio-musical variables" (pp. 47-48). Ultimately, she paints a picture of music-making that is based on "highly responsive relationships... between musicians, and between musicians and their audiences", involving what she calls "embodied, communicative modes of co-regulation" (p. 59).

Returning to the issues of music and gesture in North Indian classical music, albeit from a very different perspective, Leante's chapter (Chapter 8) is an examination of listeners' experience of North Indian classical music. This is based on group interviews with listeners in West Bengal (India), in which they were invited to respond spontaneously to recorded excerpts of North Indian classical music. Based on this, Leante presents a wide-ranging analysis of the complex sets of overlapping associations which aspects of North Indian classical music evoke for a range of listeners. Crucially, Leante highlights the embodied nature of these meanings. This builds on, and is an invaluable counterpart to, her earlier work on musicians' experiences of $r\bar{a}g$ (2009); here, she demonstrates that listeners, too, hear music with a certain

degree of "synaesthesia" (p. 163), translating aspects of sound into bodily understandings. Moreover, she emphasises the blurred boundary between "linguistically articulated" and "embodied" experiences of music (p. 183), so that "the verbal articulation of the experience of listening to music is grounded in the embodiment of sound and at the same time informed by the general discourse on the Hindustani classical tradition as well as local culture" (p. 167). As well as directing much-needed attention to listeners of North Indian classical music, so far largely neglected in work on the tradition, Leante's work on the embodied experience of music contributes importantly to wider literatures on musical meaning, music and the body and the nature of $r\bar{a}g$ in North Indian classical music.

In place of a conclusion, Clayton and Leante delve further into issues of musical embodiment in the final chapter of the book (Chapter 9), using this as a lens through which to look back on previous chapters, as well as to make suggestions for future research. Particularly valuable is their list of six types of relationships between musical performance and the body, considering how these might be implicated in a "theory of music cognition" (pp. 195-197). I would suggest a further kind of musical embodiment to add to this list: they do not mention work on the musical construction of the body, for example along the lines suggested by Suzanne Cusick. Cusick has argued that music is not only "performed *though* bodies" but is also "the performance *of* bodies", so that music can be a way in which "we project… a gendered and sexed self that is intelligible to those around us" (1999, p. 27). Cusick's work would seem to be a natural accompaniment to some of the other kinds of embodiment Clayton and Leante discuss, especially where they emphasise embodiment's "social dimension" (p. 197). Still, perhaps the introduction of gender theory into an already diverse book would be a step too far.

Chapters 6 and 7 involve other kinds of interdisciplinarity. In Chapter 6, Andy McGuiness analyses ethnographic interviews with performers of alternative rock music in light of phenomenological theories, in order to consider the relationships between musicians' self-consciousness in performance, shame and creativity. In Chapter 7, meanwhile, Dueck considers the significance of Manitoban aboriginal musicians' approaches to metre, focussing on a difference between the typical North American metrical style, on the one hand, and, on the other, a particular treatment of metre which he identifies in various genres performed by Algonquian Manitobans. He demonstrates this rhythmic distinction through transcription and music analysis, including through comparison of aboriginal and non-aboriginal renditions of the same piece. In keeping with the other chapters, the approach here is thoroughly contextualised. For example, in a nuanced discussion, he unpicks the complexities of the range of meanings, some contradictory, which the aboriginal metrical approach evokes for different audiences.

Dueck's chapter is unique in that its interdisciplinary toolkit foregrounds music analysis; this makes it a welcome complement to the more scientifically oriented chapters in the book. Dueck makes a powerful case for tying aspects of the "music itself", accessible through transcription and analysis, to social processes. Specifically, Dueck's effective combination of analysis with ethnography allows him to interpret rhythmic distinctions as "socially productive" (p. 135). That is, he theorises that music can "recruit hearers to embodied roles, inviting them to listen in distinct, culturally determined and culturally appropriate ways" (p. 135); he describes this as a process of "hailing listeners to distinctive forms of rhythmic subjecthood" (p. 135). Reading outwards, he further sees this as involved in the production of broader "social imaginaries", arguing that certain musical features presume, address and play a role in constituting particular publics (pp. 155-157).

A major strength of many of the contributions to this volume concerns technology. The *Experience* and *Meaning in Music Performance* research team has long been pioneering the use of cutting-edge audiovisual technology for the study of musical performance, in their development of multi-track and multiple-view recording techniques; these techniques bear fruit in various places in the book. The contributors also take advantage of the possibilities of the internet. The book is accompanied by a website, hosted by Oxford University Press, which contains a variety of very valuable resources; these include interview transcriptions and other data gathered through fieldwork, colour versions of some of the figures in the text, links to relevant websites, and a set of videos and audio recordings, in which the different types of musical performances discussed come to life.

A couple of editorial decisions left me puzzled. I am unsure why Hindi terms such as $r\bar{a}g$ and $t\bar{a}l$ are written without their customary diacritics. In addition, I was surprised not to see more references in the text to the fabulous online resources that accompany the book. After an introductory note, alerting the reader to the existence of the accompanying website, the occasional symbol is the only clue that something relevant is available online. Yet these online resources are an invaluable accompaniment to the text and deserve greater emphasis and discussion.

A variety of readers would likely enjoy this book. Each chapter is in dialogue with different, but overlapping, constituencies of scholars. For those of an empirical bent, the volume as a whole demonstrates the benefits of ethnography and of considering musical performance in context; it also serves as a welcome corrective to music scientists' tendency to base their research solely on Western musical traditions. For ethnographers and ethnomusicologists, meanwhile, the book is strong call to back up casual observations with empirical evidence. Students, too, would find this an accessible text. Particularly useful for newcomers to the field would be the general introductions to entrainment and embodiment (Chapters 2 and 9) that book-end the volume. For all scholars of music, the book issues a strong challenge to look beyond our own narrow disciplinary territory and explore the potential in bringing together diverse methods with an open mind.

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