Introduction

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"DANCE IS VIRTUALLY always music-and-dance, unavoidably interdisciplinary," I wrote some years ago (Jordan 2011). In recent years, this relationship has attracted much scrutiny, a long-overdue theorization of relations between the two media, yielding fascinating insights. Perhaps this is because of the late twentieth-century explosion of interest in "the body" across the arts and beyond, with music itself seen as physical business by composers, performers, and musicologists (e.g., Cox 2017). Perhaps it has been affected by the recent overwhelming drive toward interdisciplinarity across all academic fields. Whatever the reasons, try changing the music for a dance and there would be no question about the changed identity of the dance. On the other hand, a dance set to a piece of concert music (as so many dances are) may well tell us new things about that music. Consider that each medium can sometimes be subversive, at other times confirmatory of the other, with both processes highlighting the dynamic relations between the media.

In the introduction to this special issue of the *Journal of Music Theory*, I celebrate this dynamic, interactive relationship. Here the two media are both seen as subject to change rather than as static entities. They operate within a mechanism of interdependence rather than maintaining the hard binary of parallelism versus counterpoint (Kalinak 1992: 29–31). We are also dealing with a composite form: dance and music. While we might still be able to trace the separate development of the media, these two sensory planes now meet to affect each other and to create a new identity from their meeting. The old terms of *congruence* and *noncongruence*, *similarity* and *difference* now seem by themselves inadequate. As the musicologist Nicholas Cook (2013: vi) wrote in *The Psychology of Music in Multimedia*, "Multimedia is not music *and* words *and* moving images (*and* . . .) [he, and I too in 2011, could have included dance] . . . but rather subsists in the meaningful experience that results from their interaction."

Film-music theory has been especially useful here in proposing concepts of "mutual implication"—music and image working together in a *combinatoire* of expression (Gorbman 1980: 189)—as well as concepts of "added value" from

The early part of this introduction develops from my chapter in *The Routledge Companion to Dance Studies* (Jordan 2019).

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the meeting of two forces and "transsensorial perception," the visual conveying the aural and vice versa (Chion 1994: 5, 137). This issue of *JMT* comes at a time, too, when cognitive science is increasingly concerned with the basic principles of perception in cross-modal correspondences: in particular, between pitch and vertical space (auditory against nonauditory domains) but also from the phenomenon of "capture," when one medium (choreography) brings to attention aspects of another (a musical note or line), altering the perception of the music.

First, it is useful to consider how analytic research marks out the very different traditions of dance and music: in close readings of works and, in particular, in structural analysis. For this, there is a formidable tradition in music, while in comparison, there are few analyses of dance works. This may well be because dance, an altogether younger, smaller field, with a less-developed specialist typology, has never been driven by scores and film recordings in the same way. Yet, since the early twentieth century there has been a significant body of work in the area of dance movement analysis, drawing from Rudolf Laban's theory and notation systems. From the latter half of the 1980s, dance scholarship as a whole (most of it focusing on twentieth- and twenty-first-century dance within Western culture) experienced theoretical and methodological shifts similar to those in the other arts (and added into the already broad musicological spectrum). It gravitated rapidly toward interrogation of the interrelations between dance and culture while drawing on phenomenology as a key tool for making direct contact with the feelings and meanings suggested through dance. Meanwhile, the term *theory* as applied in recent dance scholarship tends to refer to cultural and political interpretations. (By contrast, in musicology, significantly, the term *music theory* has largely focused on analysis and close readings of the musical work itself.)

It is interesting, however, and rarely recognized outside the field, that those involved in dance ethnography began much earlier to work closely with music. This branch of study has engaged scholars formally since the early 1950s. An outstanding example of this is the state-supported work in the "socialist bloc" of Eastern European folk dance researchers, who in that decade started to collect a large corpus of dances with their music across many countries and then to undertake their documentation and structural analysis (Giurchescu and Kröschlová 2007). Yet this work, too, has lessened alongside the cultural turn in other dance scholarship.

In Western theater dance studies, my own field, a major contribution toward the new thinking came with the publication of Paul Hodgins's 1992 theorization and analysis (from his PhD dissertation) of the relationship between choreography and music. Hodgins coined the term *choreomusical*, which has since been modified by others as a label for the new field of choreomusicology (or choreomusical studies). That label has been used increasingly (although there are still many exceptions) for a variety of work crossing dance and music, now covering social/folk and theatrical, non-Western and Western dance activity. While some of this work has contributed to historical and cultural understanding, other work, like that of Hodgins, has been primarily analytic, involving close readings

of dances. Particularly since the millennium, there has been a marked increase in publications within the field of dance and music as a whole (books and themed journal issues), conferences (for over a decade now, about one a year, and across several countries), and dance/movement subgroups within professional societies (especially in the United States): within the Society for Ethnomusicology (2002), the American Musicological Society (2013), the Society of Dance History Scholars (2014), and the Society for Music Theory (2015).

Beginning in the 1960s, a remarkable body of choreomusical analytic research into baroque dance stands out, stemming from university music departments. Originally, it was strongly allied to the early music movement. There has been a major increase in this activity since the millennium. From a choreomusical point of view, another outstanding feature is the cluster of scholars who have researched the work of composers for dance Tchaikovsky and Stravinsky and the choreography of George Balanchine and Mark Morris. Both choreographers are well known as musicians and fluent readers of musical scores. Notably, too, those undertaking choreomusical analytic research (the most by far from North America) have had formal training in music theory and practice, as well as a certain amount of technical insider dance experience along the way (for instance, attending dance classes or providing musical accompaniment for them). That is the case, indeed, within this issue of *JMT*.

Another topic crossing the issue is rhythm. In this regard, a few points covering basic principles may provide a useful background to the articles that follow. Rhythm is the most "natural" feature linking dance with music, supported by current theories from science about our capacity to "hear" visual rhythms and evidence that we tend to hear in the mind's ear rhythms that synchronize with visual changes (Guttman, Gilroy, and Blake 2005). Yet there are problems with terminology here on both sides, as Richard Cohn elaborates in his contribution to this issue. Terms that exist for both media are known to be confusing and problematic for communication between dancers and musicians (and, correspondingly, between dance and music scholars). For instance, *counts* in dance are often used as a tool for learning choreography, and often occupy more than one beat, sometimes a whole measure, while *beats* counted within measures are used in music more frequently and only occasionally are shared as dance counts (McMains and Thomas 2013; Smith 2005). Physical limitations determine that, in a given period of time, the maximum number of possible *events* (individual moves or notes/chords, constituting basic durations in each medium) is smaller in dance than in music: dancers characteristically measure time more slowly than musicians do. Yet there is often a very precise, and analytically useful, link between the two systems, in that dance counts (which are often marked in dance scores alongside bar lines and musical time signatures) often span multiple notated measures (e.g., four dance counts might cover a four-bar span). Another term that is potentially misleading is *gesture*, a hallmark concept in today's music theory, referring to a cluster of notes of varying lengths and complexity, whereas dancers would be much more likely to restrict its use to the single movement of an arm or hand. As for the term

phrase, whereas it has often been associated with cadence points in tonal music, it has been used so extensively in dance that it has become virtually meaningless.

For choreomusical analysis, it is important that part of the reason for the misunderstandings stems from the lack of a developed vocabulary in dance analysis. But this has been compensated for by a highly developed musical tradition. Many existing concepts from music theory can be usefully applied to both media. For my own work in theater dance, I have grouped several categories together that stem from music theory and can easily be transferred to dance. To summarize, these categories can be linked under the topics of duration and frequency, stress, the grouping of sounds/movements into units, and the grouping of beats into meter and measures into hypermeasures that themselves create separate layers and build hierarchically in ascending size (into two-measure units, four-measure units, etc.) (Jordan 2000). Meanwhile, crossing the two media in practice, there is a broad spectrum of possibility. At one end is congruence with precise duplication of musical rhythm patterns in the dance. This could be supported by recognition of pitch with upward movement and is sometimes referred to as music visualization (sometimes to humorous effect, as in "mickey-mousing"). At the other end is counterpoint from the level of local accent up to the various levels of hypermeter. This is especially relevant, too, in the examination of interacting forms, another kind of visualization, with the dance matching or not matching immediate repetition or recapitulation in the music.

For all this abstract detail, it is fruitful to engage with music and dance structures as drama and to admit the power of affect, responding to the capacity for them to build and defeat expectations, to the effects of syncopation as a force against stability, and to patterns of mobility and closure that suggest tension and release. The notion of counterpoint is grounded in evidence from social dance traditions of the play between musicians and dancers as independent voices inviting interpretations of tension, anxiety, and competition. Indeed, as a simple example, Eastern European scholars have long observed the effect of metrical noncongruence through polymeter (two or more meters set against each other), a conventional device for creating tension, with dance and musical accents (as in some baroque dances) crossing in rapid succession. The Bulgarian scholar Raina Katzarova (1960: 69) likened the device to a continuous chase between the two media. Similar noncongruence became a stylistic trademark of the ballet choreographer Balanchine and featured strongly in modern dance, for instance, in the work of Morris. Most unusually, it seems, in her 1938 *Passacaglia and Fugue in C minor* (to Bach's organ work), the American modern dance pioneer Doris Humphrey introduced polymeter at both metrical and hypermetrical levels (Jordan 1996: 20–21).

Let's turn once again to the ethnographers, who have undertaken compelling research linking music with dance at the most detailed, microrhythmic level of construction. Studying the categories of beat and meter, they note that theories that appear to have worked well for Western music and African-derived forms (the two areas in which most research of this kind has been undertaken)

may not suit all forms of music. Turning to the body and to dance movement has proved revealing. Tellef Kvifte (2007) proposes looking at meter not in terms of a lowest common denominator of dance or music unit—as might be eighth- or sixteenth-note time spans—but as the physically "felt" higher level of regular or even irregular pulses (e.g., 2 + 2 + 3 + 2 + 3 spans within one measure, and these spans are already only an approximation), as in isochronous or nonisochronous meters. This research tells us about the problems of notation as well as the subtleties of the dance movement and its relation to music. For Balkan and Norwegian dance, as well as for jazz, Kvifte views notational systems that assume a regular fast pulse as misleading: they do not represent actual experience.[1]

Turning now to this issue of *JMT*, it has been exciting to welcome coverage of such a wide variety of genres, both social/folk and theater dance forms, and historical periods. It is also interesting to note theoretical connections across genres, in particular, a concern with rhythmic issues: meter and hypermeter and their potential for crossing and displacement between music and dance. I now introduce the articles in the issue order.

First, focusing on intrinsic relations between the music and dance, Mari Romarheim Haugen maps out relevant theories of cross-modal perception that can be of general application. This leads her to examine the specifics of a particular Norwegian dance-music type, the social dance *telespringar*, an example of nonisochronous meter. Following with analysis of the salsa social dance form, Rebecca Simpson-Litke examines how dancers respond to metric, primarily hypermetric, systems and perturbations within salsa music. She also examines the tradition of theorizing salsa music and dance. Alison Stevens then analyzes the eighteenth-century contredanse as a form that demonstrates hierarchies in both metrical grouping and the grouping of material (sounds/movements). Establishing both dance and music as mimetic movement experience, Stevens also argues that this experience could have influenced reception of the contredanse when it was introduced into eighteenth-century European art music.

The two articles that follow cover theater dance within the ballet tradition. Matthew Bell addresses the nineteenth-century Tchaikovsky ballets *Sleeping Beauty* and *Nutcracker*, using Stepanov scores of their choreography by Marius Petipa and Lev Ivanov. Bell discusses long-range metrical layers and displacement features and reveals how the choreography can emphasize hidden musical voices. Kara Yoo Leaman reveals Balanchine's music-based choreographic techniques in *Concerto Barocco*, attending to Bach's detail of rhythm and melodic patterns, both simultaneous and displaced connections (using her own choreomusical notation system), and to the context of American jazz and Georgian folk music.

From a dance scholarship point of view, this issue is unusual in dealing with structural analysis in such detail. I am reminded that the subject of dance struc-

1 Another promising field that this introduction does not cover is conceptual blending, which concerns interaction of another kind, focusing on the meanings resulting from two simultaneous media sources rather than on structure. See Zbikowski 2002, 2018.

ture and style and their relation to music is frequently ignored in today's dance research. But these features are not dry, schematic phenomena. We can experience a tremendous aesthetic thrill when getting to know something rigorously wrought as well as moving, meaningful, and intellectually stimulating in other ways.

It is hardly surprising, then, that nearly all choreomusical research currently comes to us out of music theory tradition. On the other hand, choreomusical work coming out of dance culture is likely to offer a different kind of thinking. I suggest that a flow of work from many perspectives would be ideal, with more scholars trained in the basics of musical techniques (not necessarily to degree level), as well as musicians and dancers working in collaboration. This issue, however, has been planned to reach at least a music and dance readership, and ideally other readerships well beyond that. Certainly, it promises a new kind of investment in choreomusical studies—still a young tradition—particularly as it looks to the future, revealing the energetic ideas of a team of early-career researchers.

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