October 2018

Motion as Music: Hypermetrical Schemas in Eighteenth-Century Contredanses

Alison N. Stevens
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MOTION AS MUSIC: HYPERMETRICAL SCHEMAS IN EIGHTEENTH-CENTURY CONTREDANSES

A Thesis Presented

by

ALISON N. STEVENS

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

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September 2018

Master of Music in Music Theory
MOTION AS MUSIC: HYPERMETRICAL SCHEMAS IN EIGHTEENTH-CENTURY CONTREDANSES

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Roberta M. Marvin, Department Chair
Music and Dance
ABSTRACT

MOTION AS MUSIC: HYPERMETRICAL SCHEMAS IN EIGHTEENTH-CENTURY CONTREDANSES

SEPTEMBER 2018

ALISON N. STEVENS, B.M., UNIVERSITY OF NORTH CAROLINA GREENSBORO
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An important part of the recent growth in scholarship on meter focuses on reconstructing eighteenth-century listening practices. Danuta Mirka (2009) studies contemporary theory treatises to build a model of eighteenth-century metric listening, while Stefan Love (2016) takes a corpus studies approach, arguing that surveying repertoire provides a more accurate view of meter than the writing of eighteenth-century theorists. But despite the known debt that much eighteenth-century art music owes to dance and dance music, Mirka and Love only briefly mention dance. In general, the connection between physical movement and musical meter has often been neglected. In this thesis I examine a collection of eighteenth-century French contredanses and their music in order to incorporate dance into a model of contemporary metric hearing.

Three features of the contredanse taken together suggest that it was a powerful generator of hypermetrical schemas similar to those John Paul Ito (2013) proposes. First, the contredanse was extremely popular in eighteenth-century Europe—recent writers on eighteenth-century music often present the minuet as the premier dance of the century, but though it remained the noblest dance, by the middle of the century it had been surpassed in popularity by the contredanse. Second, the overall structure of the
contredanse put a premium on hypermetrically regular music. The contredanse had no basic step like the minuet, but was made up rather of “figures” defined by the paths dancers moved along. The figures involved at least two dancers moving simultaneously, and often four or more dancers were required to move with or around each other. The music therefore needed to be as clear as possible to help dancers coordinate their movements. Finally, and most importantly, the experience of moving in time with this highly regular music provided a powerful reinforcement of the musical meter.
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INTRODUCTION

In this thesis I argue that eighteenth-century contredanses—as danced, not just heard—were a fundamental contributor to contemporary hypermetrical hearing. Dance in general is important to the study of meter, because meter is fundamentally a motor activity. Even when listeners make no overt movements, hearing metrically involves internal motor synchronization, and the more experience listeners have actually moving with music, the stronger their covert motor synchronization and therefore experience of meter will be. Dance played a central role in eighteenth-century European social and musical life, and the contredanse was both extremely popular and able to accommodate a wide variety of music. More than any other eighteenth-century dance, contredanse choreography and music emphasized clear hypermeter and phrase structure, directly supporting hypermetrical hearing by allowing dancers and listeners to understand large musical segments as single unified movements. I show how movement can be incorporated into a model of eighteenth-century hypermetrical hearing by examining the music and choreography in a collection of contredanses published by Sieur de la Cuisse in Paris in the 1760s. The choreography of these 100 dances maps out landmarks on the dance floor and structures movement in ways that easily support the understanding of musical hypermeter metaphorically through space and motion. Directed movements in the contredanses are consistently aligned with clearly delineated four- and eight-bar musical phrases, allowing the feeling of motion along a path to become associated with the course of a musical phrase. I argue that in the eighteenth century, listening to music even when no dancing is taking place would evoke the feeling of moving along paths in
the familiar landscape of a contredanse, enabling listeners to experience relatively large musical units as coherent motions and metrical disruptions akin to physical disorientation or obstruction.

Movement and bodily experience in general have increasingly been recognized as essential to music comprehension. Saslaw (1996) and Brower (2000) both explore how concepts in music theory are grounded by the kinesthetic image schemas developed by Mark Johnson (1987). Cox (2016) proposes that all music comprehension involves some sort of mimetic motor behavior, either imitation of sound-producing actions or imitation of the actions through which we metaphorically conceptualize musical features, such as a leap. Cox’s hypothesis is supported by the fact that parts of the brain responsible for motor control activate when people listen to music, whether or not they are moving. Researchers have begun to study how rhythm and meter in particular cause movement-related brain areas to activate, but such work has not been fully integrated into theories of meter. Meter has come to be understood as a listener behavior rather than a concrete aspect of a musical work, but it still tends to be thought of as an attentional behavior that doesn’t depend on movement or motor imagery.

Although dance has long been recognized as an important contributor to eighteenth-century music, it has been treated more as a collection of musical styles than of movement patterns. When Ratner writes, “Dance topics saturate the concert and theater music of the classic style; there is hardly a major work in this era that does not borrow heavily from the dance” (1980, 18), he is clearly speaking of borrowing musical characteristics of dances, not movement directly. And just as the role of movement has only started to be
examined in meter perception, work on dance and movement has not been much incorporated into perspectives on eighteenth-century meter in particular. Both eighteenth-century dance and eighteenth-century meter have separately been fruitful areas of study. Allanbrook (1983) studies Mozart’s use of dance topics in his operas and McKee (2012) gives a detailed explanation of how eighteenth-century art-music minuets represented the characteristics of the dance. Mirka (2009) and Love (2015; 2016) reconstruct eighteenth-century meter and hypermeter in different ways. But these works on dance and works on meter overlap very little. Additionally, whether dance is the primary focus or only briefly mentioned, writers on eighteenth-century music tend to discuss older couple dances and neglect the contredanse, which emerged as the most popular social dance in Europe by the middle of the century if not earlier.

This project develops a view of eighteenth-century hypermeter based on movement, first drawing on work showing movement’s role in music comprehension generally, then examining the movement of eighteenth-century contredanses in particular. Contredanses are important to eighteenth-century hypermeter not just because they were a popular movement activity, but also because their choreography and music differed from other contemporary dances in ways that especially fostered the development of hypermetrical schemas. “Contredanse” was originally the French term for English country dances, which were established at court during Queen Elizabeth I’s lifetime and began to arrive in France in the 1680s. The demand for such Contredanses d’Angleterre in France grew quickly enough that dance-master Raoul-Augier Feuillet remarked on it in the foreword to his fourth annual collection of dances, published in 1705, and released a collection of just
contredanses in 1706. By the second half of the eighteenth century, a distinctly French version of the contredanse was established, referred to outside of France as the *contredanse française* or sometimes *cotillon*. The French contredanse was a round or square dance for four couples, a type that had precedents in English country dancing but had declined in popularity (at least outside of France). The dancers would perform a series of figures defined by the paths dancers followed and how they interacted with each other. Music served the practical purpose of keeping dancers moving at the same speed so that they could successfully coordinate their movements. As a result, contredanse music needed to align with the choreography in very clear and predictable ways. One way to ensure predictability is to use consistent hypermetrical schemas.

Theorists continue to debate the nature and even existence of hypermeter, but the movement patterns of eighteenth-century contredanses offer strong support for a conception of hypermeter based on temporal orientation and schemas similar to what John Paul Ito (2013) proposes. Ito’s hypermetrical schemas match musical grouping functions to hyperbeats within a hypermeasure, so that a measure can be heard as the first of a group of four not just by actually being the first of a group of four, but by displaying characteristics typical of measures that are the first of a group of four. Eighteenth-century contredanses could support the development of such schemas in two ways: first, they established normative four- and eight-bar musical groups, creating the grouping-hyperbeat correspondences that enable the orientation-based play that Ito describes, and second, they aligned hierarchically structured directed movement with those musical groups, so that a given hyperbeat would be associated not just with a
musical grouping function such as “initiation,” but with the corresponding movement grouping function.

**Organization of the Thesis**

In chapter one I explore the relationship between meter and movement to show that contredanse experience would have impacted how eighteenth-century listeners understood musical meter and hypermeter even when off the dance floor. Recent work presents meter as a listener behavior, and brain research supports a conception of meter as internal motor synchronization. The nature of hypermeter continues to be debated, but Brower (1990) and Ito (2013) have proposed that while lower-level meter is based primarily on synchronization of attentional cycles with a musical stimulus, hypermeter relies mainly on a sense of temporal orientation. We understand a measure as the fourth of a group of four measures not because we have synchronized with a four-measure cycle, but because the qualitative features of that measure are associated with being the fourth of four. In order to show how movement, and particularly the movement of contredanses, would support hypermeter based on temporal orientation, I explore Arnie Cox’s mimetic hypothesis, which proposes that movement experience is fundamental to comprehension of music in general. Essentially, listening to music activates motor areas of the brain, and this activation is stronger when listeners have previous experience moving with music, whether in the process of their own music production or otherwise. Activation of motor-related brain areas as well as the impulse to move with music are part of the human tendency to conceptualize things metaphorically in terms of bodily experience. Musical motion is a metaphor based partly on temporal motion, itself a metaphor based on literal,
spatial motion. Temporal orientation is a metaphorical extension of spatial orientation. But in eighteenth-century contredanses, spatial and temporal orientation coexisted—dancers needed to move from point A to point B, and they needed to do it within a set period of time. Specific musical features became associated with the literal, physical sensations of beginning, continuing, and ending a movement. A measure could be identified as the fourth of four because its qualities had been associated with concluding a four-measure motion on the dance floor. By linking musical and temporal concepts with spatial ones, contredanses provided a fertile environment for the development of metrical and hypermetrical orientation.

Chapter two gives an overview of French social dance in the eighteenth century and provides a thorough description of the contredanse, with a focus on those features which set it apart from other contemporary dances and made it a particularly powerful schema builder. Not only was the contredanse extremely popular, but its music employed relatively few phrase shapes and aligned more closely with movements than in other dances of the time. Chapter one argues for the importance of movement to meter, while chapter two argues specifically for the importance of the movement of contredanses to eighteenth-century musical experience.

Chapter three is a close examination of the choreography in a Parisian collection of contredanses, showing that contredanses gave dancers movement experiences that easily allow a number of musical concepts, including hypermeter, to be understood metaphorically through space and movement. Each dancer in a contredanse has a well-defined home position at which to start and end each repetition of the dance, and the other dancers’ home positions as well as some locations in the center and on the edges of
the square often serve as goals for movements. These landmarks on the dance floor provide a basis for metaphorical musical locations, such as key areas or downbeats. The existence of a home position for each dancer also allows for a hierarchy of movement “cadences.” The ends of movements are generally marked by arrival at a landmark, and arrival at home is more conclusive than arrival at another location. Earlier dances supplied physical support for meter with one- or more rarely two-measure step-units, but contredanses gave dancers considerable experience with single movements lasting four measures or even longer. Like musical meter and grouping structure, contredanse choreography was hierarchical—a two-bar motion was usually part of a four-bar figure or group of figures, which in turn was usually part of an eight-bar figure or group. Contredanses also used repetition and the distinctions between movement cadences to create choreographical sentences and periods. In short, contredanses gave dancers experience moving from a defined source to a defined goal in a set period of time, which made it possible to conceptualize musical phrases and hypermeasures in terms of directed motion from a source to a goal.

Chapter four is an examination of the music in the La Cuisse collection and how well its structures are aligned with the movement structures of the choreography. Contredanse music is consistently shaped to align with the choreographical form on multiple levels, from the large-scale form of dance refrain choreography down to the frequent four- and even two-bar groups. Repetition is more frequent in the music than in the choreography, but this helps the music’s predictability and therefore power to communicate to dancers when they should begin and end their movements. The prevalence of four-bar musical phrases aligned with four-bar movements along a path allows dancers to understand four-
bar musical phrases as metaphorical paths. The first measure of a group of four is associated not just with beginning in general, but with beginning to move with the intention of going somewhere specific. Similarly, the fourth bar of four is associated with arriving at a destination and all the satisfaction that arrival brings. Contredanse choreography provides movements that help conceptualize larger musical units like hypermeasures, and contredanse music makes the connection explicit.

I conclude by exploring what it might be like to listen to art music with a repertoire of hypermetrical movement schemas built from contredanses.
CHAPTER 1

METER, HYPERMETER, AND MOVEMENT

In this chapter I explore meter and its connection to movement. Research on meter and research on movement and music have grown considerably in recent years, and each area has touched on the other in the process. Theories of meter have increasingly become theories of cognitive function, and brain research has highlighted the connection between meter and movement. At the same time, music theorists have increasingly recognized the role of the body in musical experience, including experience of meter. However, considerable room for integration of meter and movement research remains. In order to present an embodied view of eighteenth-century hypermeter I bring together Ito’s (2013) hypermetrical schemas, Cox’s (2011; 2016) mimetic hypothesis, and Lakoff and Johnson’s (1980) conceptual metaphor theory (as expanded to music by Cox 2016). To do this I first present modern approaches to meter and clarify work on hypermeter, a term that has at times been used rather indiscriminately. I then explore the role of imitation (mimetic behavior) in comprehension of music and its implications for meter perception, in general and for eighteenth-century dancers. Finally, following a number of authors (Johnson 1987; Lochhead 1989; Saslaw 1996; Lakoff and Johnson 1999; Brower 2000; Cox 2016), I examine the way bodily experience grounds the metaphorical concept of musico-temporal motion. Eighteenth-century contredanses provided a fertile environment for the development and/or strengthening of metaphors of musical motion because they consistently aligned literal paths of movement on the dance floor with musical patterns.
Current conceptions of meter

In recent years meter has come to be understood as a listener behavior rather than something present “in” musical works. As Alan Dodson (2002) points out, this evolution in music-theoretical thought can be seen in the different definitions of “meter” in the first and second editions of *New Grove*. The second edition places much more emphasis on the role of the listener or performer than the first edition, going so far as to say that “meter is more an aspect of the behavior of performers and listeners than an aspect of the music itself” (London 2001a). The change in conception of meter follows broader trends of treating music perception as an active, participatory process, and increasingly emphasizing the role of listeners over any inherent qualities music might have.

Lerdahl and Jackendoff’s *A Generative Theory of Tonal Music* (1983) makes this stance explicit from the very first sentence of the book: “We take the goal of a theory of music to be a formal description of the musical intuitions of a listener who is experienced in a musical idiom” (1; italics in original). Lerdahl and Jackendoff recognize that meter is part of a listener’s perception, and their discussion of meter attempts to identify requirements for metric perception and the ways that musical phenomena give rise to particular metric perceptions. The relationship between musical stimuli and meter in Lerdahl and Jackendoff’s theory is exemplified by the distinction they draw between phenomenal and metric accents. The former “give emphasis or stress to a moment in the musical flow ... such as sforzandi, sudden changes in dynamics or timbre, long notes, leaps to relatively high or low notes, harmonic changes, and so forth” (17), while the latter are essentially imagined by listeners as part of the process of metric perception. Lerdahl and Jackendoff develop a list of metric well-formedness rules (MWFRs) that describe the structure of
possible (perceived) meters, and a series of metric preference rules (MPRs) that make claims about how listeners “choose” a meter for a given musical work based on surface features.

As noted earlier, Mirka’s and Love’s work falls squarely in the cognitive tradition of meter studies initiated by Lerdahl and Jackendoff. Mirka is explicitly attempting to describe how eighteenth-century listeners would have perceived meter, and how what we know about their conscious approach to meter aligns with our understanding of subconscious meter-finding processes. Love argues that the musical intuitions of an experienced eighteenth-century listener can be most accurately discovered through analysis of the repertoire such listeners were familiar with. In both cases, the emphasis is on meter in the ear of the beholder, so to speak, not as an intrinsic property of musical works.

Mirka and Love cannot test their claims by examining eighteenth-century brains, but London (2012) reports on empirical studies that test the relevance of Lerdahl and Jackendoff’s MWFRs and MPRs in actual human cognition. London defines meter as “a coordinated set of periodic temporal cycles of sensorimotor attention” (2012, 91) and presents it as a specific example of the general category of attentional behaviors. His metric well-formedness constraints (WFCs) specify possible intercycle relationships, much like Lerdahl and Jackendoff’s MWFRs. London’s WFCs also include a number of quantitative limits on human meter perception. The minimum inter-onset interval (IOI) between attentional peaks is around 100 milliseconds and the maximum size of the entire set of cycles is around five seconds. A single cycle with IOIs between 400 and 1200 milliseconds is identified as the beat cycle, often referred to as the tactus by other authors. A
meter must have a beat cycle and at least one subcycle, a cycle with longer IOIs than the beat cycle. London uses the term measure to refer to an entire set of cycles, i.e. a group of peaks of sensorimotor attention, regardless of how the cycles might be realized in notation for any given musical work.

Although research into the “motor” part of “sensorimotor” has only recently begun to grow, it shows conclusively that meter and movement are connected. Henry and Grahn (2017) summarize research on meter and the brain that demonstrates the connection. Parts of the brain that are important for motor control are activated both when performing rhythms and when simply listening to rhythms. London points out that meter is only a very specific type of the broader category of attentional behaviors, and that in general such behaviors serve to prepare us for movement. Indeed, this is obviously true of meter in a performing context: entrainment allows musicians to predict when the next beats will occur and thus to perform the movements required to produce sound at the correct time. Meter perception can and does encourage movement for its own sake, as when listeners spontaneously tap their feet, clap their hands, or dance along.

Not only does metric perception affect movement, but movement can impact metric perception. As Henry and Grahn point out, listening to rhythms with a steady pulse automatically establishes communication between auditory and motor control areas of the brain. Moving while listening naturally increases the input from the motor system, and this increase seems to have a positive effect on auditory perception of rhythms. In a series of studies—with infants, then adults—Phillips-Silver and Trainor (2005; 2007) found that how participants moved (or were moved) with a metrically-ambiguous rhythm affected how that rhythm was perceived later. They further determined that watching
another person move had no effect; the actual movement of the participants was crucial. More specifically, moving the vestibular system of the middle ear affected auditory perception.

Despite the strong link between movement and meter, discussion of literal movement is still scarce outside the cognitive literature that explicitly addresses it. Meter is a behavior, but it is still treated mostly as a mental behavior. The influence of bodily movements on experience of meter remains to be explored.

**Hypermeter**

While some consensus has been reached on the nature of meter, theorists continue to debate the nature and even existence of hypermeter. Disagreement seems to have been fostered by at least three distinct usages of the term *hypermeter*, which authors are not always careful to distinguish. Table 1.1 summarizes these three senses of the word, in approximate chronological order of appearance in the literature.

**Table 1.1. Definitions of hypermeter.**

<table>
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<tr>
<td>1. An alternate term for meter when “real” or perceived measures are larger than notated measures.</td>
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<td>2a. A subset of meter, consisting of all subcycles of the beat cycle; at least two subcycles must be present.</td>
</tr>
<tr>
<td>2b. A similar subset of notated meter.</td>
</tr>
<tr>
<td>3. A mode of perception distinct from sensorimotor entrainment, employed for pulses too slow to be part of a meter.</td>
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</table>
The distinction between these usages is often subtle and at times it can be difficult to

tell which sense of the term an author is employing. Because sense 1 of hypermeter is
dependent on notation and sense 2a is not, one might expect authors’ opinion on the
relevance of notation to meter to determine their view of hypermeter. This has not been
the case—in fact, Justin London uses the first definition’s reliance on notation as grounds
for dismissal of the term altogether, even as he goes on to discuss hypermeter in sense 2a
quite thoroughly.

The differences between the first two usages of hypermeter can best be demonstrated
with examples. Cone (1968) introduces the first definition in the context of a discussion of
Chopin’s A major Prelude, Op. 28 no. 7, the first half of which is shown as Example 1.1.
Example 1.2 contains two pulse grids in the style of Lerdahl and Jackendoff, representing
two possible meters for the prelude.

**Example 1.1.** Chopin, Prelude in A Major, op. 28 no. 7, mm. 1-8.
**Example 1.2.** Two possible pulse grids for Example 1.1.

![Diagram](image)

The rectangles in Example 1.2 indicate which level is perceived as the tactus, or beat cycle in London’s terms. According to London’s classification of meters, the two meters represented in Example 1.2 are of the same metrical type, but because they have different levels as beat cycle they are different meters (2012, 91–94). Example 1.2a corresponds to the notated time signature; Example 1.2b does not. Specifically, in Example 1.2b the beat cycle corresponds to the notated measure. If Example 1.2b represents the perceived meter of the prelude, then the perceived measures are twice as long as the notated measures.

The meter represented by Example 1.2b is therefore a hypermeter: a perceived meter with larger measures than those of the notated meter. In this usage, the entire meter is a hypermeter. All hypermeters are meters, but not all meters are hypermeters. Hypermeters are a subset of meters.

Love (2016) employs the second usage of hypermeter, which can be illustrated with the same examples. In this sense a meter cannot be a hypermeter—rather, it can contain a hypermeter. The meter represented by Example 1.2a contains a hypermeter: it has at least two metric levels above the tactus. The meter represented by Example 1.2b does not contain a hypermeter, because it has only one level above the tactus. Whether the perceived tactus corresponds to a notated tactus is irrelevant to the existence of
hypermeter. The requirements for hypermeter in this sense are analogous to London’s minimal well-formedness constraints for meter. As explained above, a meter requires a beat cycle and at least one subcycle. A meter with hypermeter requires a measure cycle—a subcycle of the beat cycle—and at least one subcycle of the measure cycle. Hypermetric cycles are also subject to London’s Intercycle Relationship constraints (2012, 92). In short, the internal structure of hypermeter is analogous to that of meter. But a hypermeter is not a meter. All hypermeters are contained within meters; not all meters contain hypermeters.

In the first two senses of the word, hypermeter is closely related to meter. At times it can be difficult to tell which definition is in operation. When Cone (1968) discusses Chopin’s A major Prelude, it is unclear whether he is suggesting that we in fact take the notated measure as the tactus, hearing a meter that is a hypermeter in the first sense, or keep the notated quarter as our tactus and recognize that there are hypermetric levels in the second sense. Cone reluctantly acknowledges that there can be hypermeter in pieces where perceived measures correspond to notated measures, i.e. the second definition of hypermeter is a possibility, but he strongly discourages musicians from continuing to expand meter to higher levels (1968, 40). Lerdahl and Jackendoff point out that “the elements of metrical structure are essentially the same whether at the level of the smallest note value or at a hypermeasure level,” which is true for both senses of the word “hypermeasure” (1983, 20). In contrast, London is clearly relying entirely on the first definition of hypermeter when he states that “there is no substantive distinction between meters and so-called hypermeters” (2012, 24). For London, hypermeters are meters that do not correspond to notation. When London discusses metric levels above the tactus in
the first movement of Beethoven’s Fifth Symphony, he does not refer to them as hypermetric. A central point of London’s argument is that meters are distinguished not only by the relationships between component cycles, but also by depth or number of cycles present (2012, 17). Perceiving metrically means having some kind of awareness of how many metric levels there are above the tactus, i.e. whether there are hypermetric levels. In short, though London does not use the second definition of hypermeter, he argues for its perceptual validity.

Candace Brower (1993) suggests that there are actually two distinct perceptual mechanisms for perceiving pulses, depending on how slow they are. She distinguishes between *accentual meter* and *metric grouping*: the former involves entrainment and is relatively stable while the latter arises from counting and easily accommodates irregularities (though she suggests the counting is often subconscious and qualitative). Various studies have attempted to define the boundary between these two modes of perception. Brower ties different levels of metric perception to different kinds of memory, and since the temporal limit of echoic memory is somewhere around two seconds, in her account pulses more than two seconds apart require a counting strategy for perception as a connected pulse-stream. London reports a number of studies that likewise show the slowest possible tactus to be approximately 30 beats per minute, but as he explains, the two-second limit applies only to single pulse-streams. The upper limit for pulses organized into a metric hierarchy is higher, possibly four to six seconds. London does not discuss what Brower refers to as “metric grouping”—for him, meter is an entrainment behavior and pulse-cycles that humans cannot actually entrain to are simply not metric.
John Paul Ito (2013) proposes a conception of hypermeter that is top-down and schema-driven, in contrast to the bottom-up nature of meter. He presents hypermetrical schemas that match grouping functions such as initiation or conclusion with particular hyperbeats within a hypermeasure. Table 1.2 reproduces Ito’s Table 1, showing how grouping functions and hyperbeats match in his 1-2-3-4 schema. When such schemas are well-established in the minds of listeners, Ito argues, they can be used to manipulate listeners so that, for example, the third measure of an eight-bar phrase might sound like the first beat of a four-beat hypermeasure. This mode of perception is based not on counting, but (as Brower also suggests) on the quality of “oneness” or more specifically “first-of-four-ness.” Hyperbeats are identified by matching them to an already established schema rather than arising from entrainment or explicit counting.

<table>
<thead>
<tr>
<th>Type of attribute</th>
<th>Hypermetrical weight and grouping function for hyperbeats in the 1-2-3-4 schema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of attribute</td>
<td>Degree of metrical weight</td>
</tr>
<tr>
<td>Degree of metrical weight</td>
<td>Primary weight</td>
</tr>
<tr>
<td>Role in grouping unit</td>
<td>Initiation</td>
</tr>
</tbody>
</table>

The qualitative feeling of position within a familiar temporal pattern is what Ito refers to as “metrical orientation” and is a distinct mode of perception from the entrainment strategies that constitute lower levels of meter (though Ito argues that both entrainment
and orientation are present at lower levels, and orientation only becomes more prominent as entrainment fails). Ito grounds metric orientation in cognitive research—while meter is a species of the broader category of human attentional behaviors, hypermeter is a species of temporal orientation. Temporal orientation is not restricted to very short time scales, as entrainment is, but rather “occurs on many time scales at once” (Ito, 58). Just as physical landmarks help to orient us in space, temporal “landmarks” help to maintain a sense of orientation in time. Hypermetrical orientation depends on heard downbeats as landmarks, and the time from downbeat to downbeat constitutes a heard measure. Listeners orient themselves with regard to these measures, maintaining an awareness of position within a hypermetrical schema.

**Mimetic comprehension**

Recent works on meter and hypermeter discuss movement very little, if at all, but Arnie Cox’s (2011; 2016) mimetic hypothesis gives movement a significant role in comprehension of music in general. Movement is obviously vital to musical performers, but Cox argues that simply listening to music “involves one or more kinds of vicarious performance, or imitation (or simulation), and that the role of this imitation in music is a special case of its general role in human perception” (2016, 11). Cox refers to this vicarious performance as “mimetic behavior.” Mimetic behavior can be overt (mimetic motor action, MMA), as when athletes, dancers, or musicians imitate the actions of a teacher or coach. It can also be covert (mimetic motor imagery, MMI), when muscle-
related parts of the brain activate but no actual movement occurs.\(^1\) MMI is quite frequent in humans, but because it is covert we are often entirely unaware of it, and thus of the power it may have to shape our experience. Although MMI does not involve overt movement, it is still motor behavior—it involves activation of motor-related parts of the brain and in some cases muscle excitation as if in preparation for movement. Mimetic behavior can be intramodal, as when one clarinetist imitates the actions of another, or it can be cross-modal, as when a clarinetist—or a dancer—imitates a singer.

Evidence for the mimetic hypothesis comes most significantly from neurological studies measuring motor-related brain activity, i.e. MMI. (While one might question the importance of overt musical imitation to musical comprehension, one cannot deny that such overt imitation occurs.) Studies of MMI in specifically musical contexts are relatively few, but the prevalence of MMI for non-musical activities suggests that it is part of human cognition generally and therefore part of music cognition. As Cox remarks, “it would be strange if we generally comprehended the actions of others via imitation and yet did not do so in the case of musical actions” (2016, 35). MMI has been activated when watching others perform goal-directed actions (Grèzes, Costes, and Decety 1998), hearing the sounds of hand actions without seeing the actions (Gazzola, Aziz-Zadeh, and Keysers 2006), listening to spoken words and nonwords (Fadiga et al. 2002), viewing lip movements or even still photos of lips (Nishitani and Hari 2002), and listening to continuous spoken prose or to nonverbal sounds (Watkins, Strafella, and Paus 2003). As

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\(^1\) In addition to overtness, Cox identifies volition and consciousness as important variables of mimetic behavior. Mimetic behavior can be voluntary or involuntary, conscious or nonconscious, and overt or covert. Except when paradoxical situations arise, these variables are independent of each other. MMI can be conscious and voluntary, but Cox is particularly interested in MMI that is nonconscious and involuntary because it “shapes music conceptualization without our awareness” (2016, 43).
noted above, numerous studies show that listening to musical rhythms activates motor areas of the brain (Henry and Grahn 2017). Cox reports studies showing that mimetic subvocalization occurs when listening to or imagining vocal melodies (2016, 28–30) and argues that subvocalization is a part of timbre perception as well (30–32).

Under the mimetic hypothesis, meter is transformed from cycles of sensorimotor attention to repeating patterns of mimetic exertions. Put another way, sensorimotor attention is mimetic motor imagery. Finding meter involves synchronization of internal movement with musical features. Metrical accents, as Lerdahl and Jackendoff note, are not present in the auditory signal but are imagined by listeners, and that imagination takes the form of motor imagery. “Strong” beats are not heard so much as felt, because they correspond to a strong movement even when that movement is only in imagery. London’s “loud rests” (1993) are not loud in volume, but rather in movement. The strongest mimetic exertions coincide with downbeats, so that even if there is no sound on a given downbeat, listeners will feel as if something strong happened (Cox 2016, 138–9).

The nature and strength of a given individual’s MMI depends on their particular experience. The sounds of actions listeners have performed elicit stronger responses than sounds of actions they have not performed. When listening to piano music, pianists have more motor-related brain activity than non-pianists (Cox 2016, 32–33). Margulis et al. (2009) found more specifically that expert violinists and flutists had much stronger MMI when listening to their own instrument being played, regardless of whether the music was originally intended for flute or violin. MMI varies similarly when watching performances—one study showed more brain activity in expert dancers than in novices when watching other dancers (Calvo-Merino et al. 2005). Even for people with no
performance experience, music and dance in familiar styles or genres is likely to evoke a
stronger mimetic response than unfamiliar music and dance. David Huron suggests that
the “mere exposure effect”—our tendency to prefer the familiar over the unfamiliar—
might be more accurately termed the “prediction effect,” since exposure increases our
ability to successfully predict what will happen next, and successful predictions are
rewarding (Huron 2006, 138–139). Cox argues that we also improve at predicting what
we will vicariously do next, so that a preference for familiar music is partly due to
increased ability to engage mimetically (Cox 2016, 49).

Apart from instrument-specific skills, moving to music has been shown to improve
meter perception in particular. McCoy and Ellis (1992) tested three strategies for teaching
meter perception in introductory college music courses for non-majors. After being given
a definition of meter, the first group of students simply listened to examples, the second
listened to the same examples with the addition of click tracks marking beats and
measures, and the third participated in movement activities coordinated with the meter of
the examples. Movement activities were by far the most successful instructional strategy,
even though the instruction period in all cases was quite short. The authors note that
“textbooks written for use in introductory music classes generally discuss meter in relation
to physical movement,” but students in introductory classes do not necessarily have
experience moving in time with musical meter (McCoy and Ellis 1992, 43). Giving
students that experience, even briefly, appears to increase the capacity for mimetic
engagement with meter. Huron notes that paraplegics “have more difficulty with both
rhythmic production and rhythmic perception tasks than do nonparaplegics” (2006, 190).
These findings, and those of Phillips-Silver and Trainor mentioned above, support “the
proposition that rhythm perception involves real-time MMI, or mimetic enactment of the rhythms heard, based on previous overt imitation (MMA)” (Cox 2016, 19).

Synchronizing movements to meter, or rather externalizing meter through bodily movements, is a mimetic behavior that formed an important part of all eighteenth-century dancing. Minuet dancers were expected to mark every other downbeat (every six beats) by rising from a sink; conversely, composers were expected to provide music that facilitated or imitated the two-bar minuet step by also marking every other downbeat (McKee 2011, 24–25). Similar one-bar step-units existed for other dances popular at the beginning of the eighteenth century, such as the gavotte and bourrée. However, this mutual imitation did not always extend to higher levels of meter. Kellom Tomlinson’s 1735 treatise, The Art of Dancing, indicates that it was undesirable to align the beginning and end of a minuet figure—an eight- to sixteen-bar unit—with the beginning and end of a musical strain: “instead of standing to wait the Close or Ending of a Strain of the Tune, begin upon the first Time that offers, in that it is much more genteel and shews the Dancer’s Capacity and Ear in distinguishing of the Time, and from thence begets himself a good Opinion from the Beholders…whereas the attending the concluding or finishing of a Strain has the contrary Effect” (Tomlinson [1735] 1970, 124). Two-bar units were harder to identify in the middle of a strain than at the beginning, so dancers who could correctly align their two-bar step-units in the middle of a strain showed greater musical
skill. If dancers remained mimetically engaged with hypermeter at the musical phrase level, this could lead to a sort of kinesthetic dissonance or embodied metric dissonance.²

In contrast, eighteenth-century contredanses rarely generated metric dissonance. Contredanse music and choreography were to a large degree imitations of each other, or different but simultaneous enactments of a single underlying exertion schema. The beginnings and endings of musical strains always corresponded to beginnings and endings of dance figures. Within a strain a musical cadence might not be marked by the end of a figure, or the end of a particularly short figure might not be attended by a musical cadence. But dance figures never overlapped strain boundaries the way they might in a minuet. The reason for this was likely practical—clear musical beginnings and endings make it much easier to coordinate the movements of eight or more dancers. The requirement of synchrony means that “contredanse music on the whole exhibits a much higher degree of structural uniformity” than minuet music (McKee 2014, 24). I would also posit that a certain amount of fusion of movement and music took place. Contredanse movements would cause participants or observers to imagine accompanying music, and contredanse music would cause listeners to imagine the accompanying movements. Since MMI is shaped by experience, the contredanse was often danced in the eighteenth century, and contredanse music and choreography were closely aligned, eighteenth-century listeners would likely have had dance-related MMI even when listening to music while no dancing takes place.

² Krebs (1987; 1999) defines two types of metric dissonance, both arising from some amount of non-alignment of interpretive layers (his term for subcycles of the beat cycle). From my perspective, all metric dissonance is embodied, because interpretive layers are generated by listeners’ motor imagery. It would be especially pronounced in the case of the minuet, however, because one of the conflicting interpretive layers is generated by the dancer’s overt motion.
Metaphor and Musical Motion

Although some of the authors I have discussed neglect literal motion, they nonetheless commonly make references to metaphorical musical motion. Mirka describes a Haydn example by stating that “the tonic stands on the upbeat and moves to the dominant on the following downbeat” (2009, 54). Love (2015) speaks of beats that “arrive” and music that “presses forward.” As Robert Gjerdingen notes, “Musicians, in their everyday speech, take it for granted that music moves. Melodies ‘go’ here and there, instruments ‘run’ up and down scales, vibrato ‘wobbles’ around a central tone, trills ‘shake,’ chords ‘leap’ to higher or lower ranges, and so forth” (1994, 336). The ubiquity of musical motion in discussion of music may make it seem literal, but several music theorists have recognized the imaginary nature of musical motion. Judy Lochhead gives examples of Milton Babbitt, Maury Yeston, and Charles Wuorinen referring to motion in music, but points out, “In such discussions of musical motion, one cannot point to any thing that moves” (1989–90, 84; emphasis in original). Gjerdingen similarly states, “in hearing the subject of a Bach fugue…it is not at all clear what is moving or where that motion takes place” (1994, 336). London notes that “rhythm signifies movement, but musical tones do not move” (2012, 6). Cox argues that “in most cases musical motion is entirely imaginary” (2016, 109).

The concept of musical motion (in the “horizontal” dimension) is a particular kind of temporal motion, which is in turn a specific example of the general human capacity for
metaphoric reasoning. According to Lakoff and Johnson (1980), our conceptual understanding of the world is largely structured by metaphors. The linguistic expressions that we commonly call metaphors are a result of our tendency to understand concepts in terms of other, usually more familiar, concepts, and they are also evidence of more basic conceptual metaphors. For example, the conceptual metaphor GREATER IS HIGHER underlies a number of commonplace expressions:

- Gas prices are *climbing*.
- The temperature *dropped* sharply.
- She *rose* through the ranks.
- The tension reached unbearable *heights*.

In all of these expressions, nothing is physically moving—the environments through which the subjects move are metaphorical, not physical, and in most cases the subject is abstract and cannot even have a discrete physical location (gas prices, temperature, tension). Yet using physical height to mean “larger quantity” is so common that it may not seem metaphorical—in many cases it is difficult to talk about quantities without using words relating to height. Lakoff and Johnson (1980) argue that sentences such as these are not separate linguistic metaphors learned independently, but are generated by and understood through the conceptual metaphor GREATER IS HIGHER. The conceptual metaphor structures our thinking, allowing us to create expressions that we have never heard before and allowing listeners or readers to understand our novel expressions.

Lakoff and Johnson (1999) discuss two primary metaphorical conceptualizations of time in terms of motion. One is the “moving time metaphor,” in which we are stationary...
observers and time is a series of objects or a substance that moves toward and past us. This is the metaphor underlying such expressions as “the time flew by.” The other primary metaphor is that of the moving observer, in which time is a landscape that we move through. Both the moving time and the moving observer scenarios depend on the fundamental conceptual metaphors states are locations and change is motion. Cox provides a thorough exploration of how these metaphors and the two time scenarios shape understanding of music (2016, 109–133).

Conceptual metaphors are ultimately based in our bodily experience; they tend to be ways of understanding abstract concepts in terms of concrete, physical, and embodied experiences (Lakoff and Johnson 1980; 1999; Johnson 2017, 15, 26–27). Cox points out that the trend of understanding abstract ideas in terms of concrete ones can be seen on the vastly different time scales of child development and etymological evolution (2016, 59). When Lakoff and Johnson introduced the idea of conceptual metaphors, they provided possible experiential bases for many of the metaphors they discussed (1980, chapter 4). Understanding abstract concepts in terms of concrete concepts requires recognizing discrete patterns in our concrete experience, which Johnson (1987) terms “image schemas”—“recurring patterns of our sensory-motor-affective experience by means of which we can make sense of that experience and reason about it” (Johnson 2017, 127). The term “image schema” may seem to evoke an external picture, but an image schema is actually an internal representation of motion, sensory information (including visual), and affective experience that all go together. Cox emphasizes the motor and affective aspects when introducing the PATH schema, “an abstraction derived primarily from one’s enactments of path-related movement, including exertions,
maintenance of balance, and the motivation to move along a path in the first place” (2016, 64). Authors who represent image schemas with visual diagrams (Johnson 1987; Saslaw 1996; Brower 2000) are careful to note that such diagrams are merely conveniences and do not capture the dynamic and kinesthetic nature of image schemas. Cox suggests the term “exertion schema” to emphasize the first-person experiential nature of image schemas and notes that they may also include some degree of desire, planning, and satisfaction or dissatisfaction (2016, 66).

Christopher Johnson (1997) has hypothesized that children begin to learn conceptual metaphors through “conflation”—sensorimotor and nonsensorimotor experiences that happen simultaneously are conflated, so that later when children separate the experiences the cross-domain mappings persist. For example, early experiences of knowing an object often occur when seeing it, holding it, or possibly chewing on it. The conflation of knowing with seeing, holding, and tasting contributes to the conceptual metaphors KNOWING IS SEEING (I see what you mean), UNDERSTANDING IS GRASPING (I don’t have a good grasp on the subject), and IDEAS ARE FOOD (I’ll have to chew on that idea for a bit).

Cox examines how conflation might play a role in metaphors mapping space onto time, because the phenomenologies of movement and temporal change are in many ways the same and even experienced together. When we move toward and past a desired goal, we anticipate the goal while it is ahead of us, we experience its presence when we arrive at it, and we remember it when it is behind us. Anticipation, presence, and memory are a part of the experience of moving, but they do not only occur when moving. “Anticipation applies literally to events that are yet to occur, presence applies to events that are occurring, and memory applies to events that have already occurred” (Cox 2016,
Since anticipation in the spatial domain correlates with approaching a location that is ahead of us, anticipation in a non-spatial domain such as time brings with it a feeling of approaching a metaphorical location up ahead. Example 1.3 is a reproduction of Cox’s figure 5.3 (2016, 122), showing how the shared phenomenology of locomotion and music listening enable a conceptual blend, or metaphorical understanding of musical events as motion.

**Example 1.3.** Figure 5.3 from Cox (2016): Conceptual blend of spatiality and music.

Ito’s metrical orientation and hypermetrical schemas are both products of metaphorical conceptualizations of time and temporal change in terms of space and
movement. In the case of metrical orientation, Ito makes the metaphor explicit: “Metrical hearing is oriented in time in relation to the heard downbeat much as a Chicagoan is oriented in space in relation to the Lake” (2013, 60). This is an extension of STATES ARE LOCATIONS, or perhaps EVENTS ARE LOCATIONS, and DIFFERENCE IS DISTANCE.

Downbeats are understood as metaphorical locations and the time difference between them is understood as spatial distance that listeners or “the music” can move across. Hypermetrical schemas are simply metrical orientation in a much more detailed temporal landscape. Downbeat landmarks in hypermetrical schemas are not all the same but rather have qualitative differences that allow them to be grouped into regular patterns. Once again Ito states that the feeling of orientation within a familiar pattern is best understood by analogy with physical motion, such as conducting patterns—“once the templates are overlearned, you always know where you are” (2013, 61).

I propose that hypermetrical orientation and metaphorical conceptualization of hypermetrical units as patterns of movement developed alongside, or were at least greatly strengthened by, the regular patterns of movement of the contredanse. Ito (2013, 65), following Rothstein (1989, 34), suggests that highly regular dance music led to the development of hypermetrical hearing, but highly regular dance music itself developed out of the practical need to coordinate dancers in both space and time. As noted above, minuet dancers were not necessarily expected to align their figures with musical phrases. Contredanse figures, on the other hand, were intended to align with musical downbeats in a prescribed way, so that individual downbeats were often associated (or conflated) with specific spatial locations. Some spatial locations were defined more precisely than others (the endpoint of a path might be more important than the exact location of points.
along the way), so some musical downbeats needed to be more clearly marked than others. Dancers needed to be oriented both spatially and temporally in order to perform figures accurately—moving too slowly could be just as disruptive to the dance as moving in the wrong direction. Musical grouping units were shaped to correspond to units of movement, or movement schemas. Many contredanse figures were essentially realizations of the PATH schema, and by association the accompanying musical phrases could be understood as examples of the PATH schema as well. Contredanses enabled the conflation of musical phrases with literal motion, which in turn allowed musical phrases to be conceptualized as movements from dance even in the absence of dancers.

Moving along paths with music encourages conceptualization of various musical features in terms of the PATH schema. Harmonic change can be understood as a “journey” from tonic to dominant and perhaps “back to” tonic. A steady beat and repetitive rhythms convey a sense of constant velocity along a path. Occasional longer durations might mark “landmarks” along the path. Increasing rhythmic activity—and more frequent harmonic change—toward the end of a phrase could correlate with heightened anticipation just before reaching a desired goal. Musical groups acquire an “initiation” function when their features are associated with beginning to move along a path. “Concluding” function likewise comes from an association with arrival at the goal of a path. These functions do not depend on the actual location of the grouping unit within the phrase, but on the musical features and what part of a motion those features have most often accompanied. The qualitative counting Brower suggests makes sense when certain musical features have been associated with “first-ness” or “third-of-four-ness.” This in turn enables hearings such as Ito (2013) describes, in which the fifth measure of an
eight-bar phrase can be heard as the third of four measures based on its musical characteristics.

Ito’s 2-3-4-1 schema is a realization of the SOURCE-PATH-GOAL schema in which the goal is particularly emphasized. The associated movement is one toward a particularly desired location, such as returning home after being away (one can return home as in to one’s place of abode, and one can also return home within a particular contredanse). Anticipation increases as one approaches the goal and there is a definite moment of arrival and satisfaction. The 1-2-3-4 schema conversely emphasizes the source of the SOURCE-PATH-GOAL schema. The associated movement could also be a simple reversal—leaving a favored location with no particular goal in mind or a goal that is not highly desirable. Focusing on the actual motion and less on affective associations, this movement might be like gliding on skates, or what we imagine it would be like to be a hockey puck. Something applies force to get us moving, very fast at first, but gradually slowing down as we travel. “Slowing down” in this case would be portrayed in music not by a slower overall tempo, but by less frequent note onsets and harmonic changes. These musical features might evoke a feeling of literally slowing down even if the tactus remains constant, because of an association with physical motions that slow down.

**Conclusion**

At the beginning of this chapter I referred to the “connection” between movement and meter, but it would be more accurate to say that meter is movement. Meter is motor synchronization with musical sounds, whether it involves external movement or merely motor imagery. Meter is a form of cross-modal mimetic behavior, which is in turn a form
of metaphorical reasoning. Cross-modal imitation involves recognizing patterns in different modalities as somehow the same. In the case of meter, music is understood to represent a periodic cycle of movements. Music is also understood to represent motion through a temporal landscape, with pulses at all levels as landmarks. At higher levels of meter, our sense of periodicity fades, but a sense of orientation can remain on many levels, including large-scale musical forms.

In sharing the mimetic hypothesis, Cox has encountered several objections, including doubt that attentive music listening necessarily involves mimetic behavior (2016, 56). But while the strength of individuals’ mimetic comprehension of music does vary considerably based on experience, activation of motor imagery when listening to music appears to be innate and happens frequently without conscious awareness. More importantly, movement played a much more well-established role in eighteenth-century musical experiences in Europe. Modern listeners, as Love (2015) notes, “hear an extraordinary variety of styles and genres, but explore few in any depth” (2.1). Eighteenth-century listeners had the opposite experience: they heard a limited number of musical styles, but knew those they were exposed to intimately. Dance music was particularly important to eighteenth-century styles, but as the next chapter shows, so was dancing. Eighteenth-century listeners could easily understand meter and hypermeter in terms of motion, because they were experienced as periodic motion on the dance floor.
CHAPTER 2
THE CONTREDANSE IN CONTEXT: EIGHTEENTH-CENTURY FRENCH SOCIAL DANCE

In this chapter I explore the position of the contredanse in eighteenth-century French social and musical life. The contredanse’s power to affect meter experience came from a complicated web of factors, including both musical and dance characteristics and the role those characteristics helped the contredanse play as a social activity. Contredanse choreography and music emphasized clear hypermeter and phrase structure, directly supporting hypermetrical hearing by allowing dancers and listeners to understand large musical segments as single unified movements. Though contredanse music required clear hypermeter, it was flexible with regard to meter, which meant that the contredanse could be used to understand a wider variety of music than other dances such as the gavotte or minuet. It also meant that contredanse music could come from a wider variety of sources—several of the dances in the La Cuisse collection have music taken from operas or other spectacles, and while the music thus borrowed could have been intended for a contredanse, it didn’t need to be in order to be usable as contredanse music. One of Mozart’s contredanses for dancing (K. 609 no. 1) is simply an arrangement of his own “Non più andrai.” Contredanses were part of how listeners discovered and consumed popular music; dance life and musical life in France were not separate, but heavily entangled with each other.

Over the course of the eighteenth century, the contredanse became accessible to an unusually wide variety of dancers, further boosting its ability to shape experience of meter and hypermeter. The contredanse was easier than any of the older court dances, and it
came to dominate public balls, where anyone who could pay was admitted. Allanbrook calls the increasing popularity of the contredanse “an irreversible revolution in social dance—the conquest of the French court choreographies by a phenomenon I shall call the ‘danceless dance’” (1983, 55). This chapter begins by examining French court dancing at the beginning of the eighteenth century in order to show how dance transitioned from hierarchical display to enjoyable social activity, a change the contredanse supported with its simplicity and lack of hierarchical dance roles. A description of the French contredanse’s development and characteristics follows.

Before 1760

At the beginning of the eighteenth century, dance was an essential part of French court life. King Louis XIV had been a particularly enthusiastic dancer in his youth and had maintained a rigorous schedule of court balls and theatrical dances, partly for his own entertainment, partly to keep his courtiers occupied, and partly to impress the rest of Europe with the French court’s capacity for spectacle (Hilton 1981). In 1661 he established the Académie Royale de Danse, eleven years before the Académie Royale de Musique (which eventually became the Paris Opéra) was founded. Dance masters were vital not only to choreograph and teach individual dances for court occasions, but to teach nobles how to carry themselves with grace and majesty at all times.

Court dancing in the late seventeenth and early eighteenth century included social dances and theatrical dances, although the distinction between the two was not always clear. Social dances were usually danses à deux, intended to be danced by one couple at a time in descending order of rank while others watched. Balls served not only to keep
courtiers occupied but also to remind them of their place in the social hierarchy.
Theatrical dances were not very different from social dances in their content, but they offered an opportunity for talented non-nobles to perform at court.

In the late seventeenth century a form of dance notation was developed, known now as Beauchamp-Feuillet notation. Dance master Raoul-Augur Feuillet first published choreographies using this notation in 1700 and two years later he initiated an annual series of dance publications. These were made available at the beginning of November so that dancers could prepare for carnival season when balls were most frequent. A 1721 collection known as the *Gros recueil* includes the dances published in the annual collections through 1720, plus six additional dances (Brainard 1986, 166). The 66 dances in the *Gros recueil* are primarily bourées, passepieds, rigaudons, gavottes, and minuets. Other dances represented include forlane, marche, rondeau, loure, canarie, courante, and allemande.

In the 1705 collection Feuillet also published a dance called “cotillon,” which the foreword defines as “a manner of branle that all kinds of persons can dance without ever having learned it” (Brainard 1986, 167). The 1705 exemplar, choreographed by Feuillet, is for four dancers and involves six figures (couplets) that alternate with a refrain. Another cotillon appears in the collection for 1716, this time for eight dancers, and the music is titled “contre-danse,” making an explicit connection between cotillons and contredanses (Brainard 1986, 167; Dezais 1716). Contredanses were first mentioned in the 1705 collection, where Feuillet notes that these dances from England were very

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4. Brainard says there are seven couplets, but the original collection available on Gallica only shows six (Feuillet 1705). The other two dances in this collection explicitly say “composée par M. Pécour” or “composée par M. Feuillet,” while the Cotillon has no indication of choreographer or composer.
popular and he would be releasing a collection of some of the best the following year.

Feuillet’s *Recueil de contredances* contains 32 dances, some of which were taken directly from Playford.⁵ These are longways dances in which each iteration moves the top couple to a new position in the line, the format that came to dominate later editions of Playford’s *Dancing Master*. Subsequent French annual collections include contredanses along with the danses à deux.

Several authors suggest that the contredanse grew in popularity because it allowed more people to dance at the same time and it was easier than many of the other social dances (Harris-Warrick 1986, 46; Reichart 1984; Semmens 2004). Harris-Warrick explains, “Their interest lay in the patterns and figures formed by the group of dancers rather than in the steps, which, although more codified than those of the English country dances, were simple and repetitious in comparison with the complex step patterns of the choreographed French dances” (1986, 46). In the eighteen editions of Playford’s *The Dancing Master*, remarks on the steps used are infrequent and seem to indicate a simple walk. French publications, in contrast, prescribe specific steps to be used in the contredanse, although as Harris-Warrick notes they are repetitive and of secondary importance. The contredanse never had a step named for itself, but rather borrowed characteristic steps from other dances. Feuillet’s cotillon from 1705 employed gavotte and rigaudon steps, which remained associated with the contredanse through the 1760s.

In 1716 the Paris Opéra hosted its first series of public balls. While there may have been precedents in Italy and England, in many ways the balls offered by the Paris Opéra

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5. Examples include “Christ Church Bells” which appears as “Le Carillon d’Oxford” and “Green Sleeves” presented as “Les Manches Vertes.”
were unlike anything attendees could have experienced previously. Richard Semmens’s *The Bals publics at the Paris Opera in the Eighteenth Century* (2004) gives a thorough account of the establishment of these events. Unlike the royal balls, masquerades, and other private or even public balls given before 1716, the opera balls had no host and consequently presented little opportunity for social maneuvering. Dancers had to pay to attend and were required to wear masks, further obscuring rank distinctions among attendees. They were presented in the Salle de l’Opéra in the *Palais-Royal*, which “was almost certainly the largest ballroom any of those attending the first public balls had ever seen” (Semmens 2004, 5).

The greatest distinction of the public opera balls was that they eventually became the model on which other balls were based. During Louis XIV’s reign, royal balls at Versailles had served as models for other European courts as well as French nobles to emulate. By 1744, however, the duc de Luynes wrote that an event held at Versailles was modeled on the opera balls. The association of public balls with the opera was assisted by the fact that after the 1717 carnival season they were granted the exclusive privilege of holding public balls. The *Comediens* had mounted a competing series of balls, apparently impressed by the popularity and profitability of the first season of opera balls. The opera directors successfully persuaded the regent that Paris could only support one series of public balls, and they should be the ones to host it (Semmens 2004, 13–14).

Evidence of the dancing in the early years of the opera balls is scant. Very few choreographies were published between 1720 and 1745, and those that were indicate no connection with the opera balls. However, numerous collections of dance music claiming association with the opera balls were published during and after this time. Semmens has
examined 33 printed collections mentioning opera balls in their titles, most belonging to one of several series of such publications (2004, 143–145). Many of these collections are undated, but it is likely that they span nearly the entire lifetime of the opera balls, up to the revolution. The majority are explicitly collections of contredanses. A few early volumes were devoted to the minuet and isolated minuets appeared among the contredanses in other collections. After about 1740 minuets are rather scarce, “in sharp contrast to imprints that have no definitive links to the opera ball, in which menuets continue to be featured well past mid-century” (Semmens 2004, 142). Semmens has found only one explicit reference to danses à deux at the opera balls, from the Mercure galant of February 1727: “Besides menuets for two and for four, many other special dances were performed, [as well as] a good many contredanses, in which eight, twelve, and up to sixteen persons dance together with much vivacity and a great variety of steps and attitudes” (quoted in Semmens 2004, 156). It seems likely that the early opera balls included minuets and contredanses as well as occasional branles or other dances, but the contredanse gradually came to predominate.

**After 1760**

Choreographies of contredanses associated with the Paris opera balls began to be published in the 1760s. From these publications it can be seen that the French had codified a form of contredanse that differed from English country dances in both the

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6. Reichart’s Table V (1984, 175) lists 20 collections of French contredanses held by the New York Public Library, not necessarily with any link to the opera balls. All but one collection includes verbal descriptions of choreography, but less than half contain diagrams of the dances. Some of the collections listed are now accessible at the Library of Congress’s American Memory website.
spatial organization of the dancers and the choreographic form. Although the early editions of Playford had included round and square dances, by the eighteenth and final edition the “longways for as many as will” was clearly dominant. The new French contredanses, in contrast, were square dances for four couples. In both English and French versions a set of figures was repeated multiple times. In English country dances those dancing the figures would end each repetition in a different position from where they had begun. Only two or three couples would dance the first time through and more dancers would be incorporated with each repetition. In French contredanses, everyone returned to their starting position at the end of each repetition. Everyone had a “home” position relative to which they could orient themselves. Moments of rest were almost non-existent—everyone started dancing at the beginning of the dance and continued to the end.

English country dances involved exact repetitions of figures by changing groups of dancers—couples would progress down the line, dancing with each other couple in turn—accompanied by the same music each time. In contrast, French contredanses had a sort of verse-refrain structure with the choreography taking the place of text. The music would be repeated exactly, but each time through the music the first figure would be different, functioning as a verse, while the rest of the figures made up a repeated refrain. By the 1760s a set of nine verses had been established as standard for all contredanses. Individual contredanse choreographies were distinguished by their refrains. Table 2.1, reproduced from Reichart (1984, 179–180), shows the French names for the standard verse figures along with brief English descriptions.
### Table 2.1. Dance “verses” common to nearly all French contredanses.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1. Le grand rond</td>
<td>All take hands, circle right, then left</td>
</tr>
<tr>
<td>2. La main</td>
<td>Partners take right hands and turn, back with left</td>
</tr>
<tr>
<td>3. Les deux mains</td>
<td>Partners take both hands and turn</td>
</tr>
<tr>
<td>4. Le moulinet des dames</td>
<td>Ladies moulinet (star) right, then left</td>
</tr>
<tr>
<td>5. Le moulinet des cavaliers</td>
<td>Gentlemen moulinet right, then left</td>
</tr>
<tr>
<td>6. Le rond des dames</td>
<td>Ladies join hands and circle right, then left</td>
</tr>
<tr>
<td>7. Le rond des cavaliers</td>
<td>Gentlemen circle right, then left</td>
</tr>
<tr>
<td>8. L’allemande</td>
<td>Partners allemande right, then left</td>
</tr>
<tr>
<td>9. Le grand rond</td>
<td>Same as no. 1</td>
</tr>
</tbody>
</table>

Sieur de la Cuisse initiated a series of contredanse publications in the 1760s in a four-page format that was soon adopted by others (Reichart 1984). An early release is shown as Example 2.1, containing music on the front page, descriptions of the figures on the inside facing birds-eye-view diagrams of the same figures, and words to the song on the back. Later dances in the series shifted the music to the back and made the front a title page. Dances were published individually as well as in collections. A preface to one of the collected versions includes instructions on the steps to be used for contredanses, explanations of some named figures, and a list of the “tours” or standard verse figures. The descriptions and corresponding diagrams of figures in individual dances usually do not include the tours, but often say “après le Rond ordinaire” before the figure descriptions and “La Main” at the end.

Contredanse music was usually in duple meter, but could be simple or compound. Early publications (such as Feuillet’s 1706 collection) tended to use $\frac{2}{4}$ and $\frac{4}{4}$ time.
signatures which gradually shifted to $\frac{3}{4}$ and $\frac{9}{8}$. Tunes notated in $\frac{3}{4}$ in the La Cuisse collection sometimes include a beat or two with triple subdivisions. Published collections also included a few contredanses in minuet time, which are notated in $\frac{3}{4}$ or simply $3$ and use minuet steps instead of gavotte or rigaudon steps. Dance 21 in the La Cuisse collection is such a minuet-contredanse and contains instructions for replacing the verses as well as the dance refrain. The following dance in the collection (the “Amusemens de la Loire” spoken of at the top of the description page in feuille 21) has the same choreography but a different tune, in $\frac{3}{4}$. There is even a suggestion to alternate the minuet and the $\frac{3}{4}$ contredanse (requiring alternation of steps as well).

The only musical difference between English and French contredanses is that the French ones usually have a half-bar upbeat while the English have a shorter upbeat, if there is one at all. Reichart argues that English tunes were meant to be sung, so their rhythms reflect the requirements of “ballad meter.” French tunes, on the other hand, reflect the needs of dance steps, specifically the gavotte step commonly used in contredanses. Charles Compan, in a Dictionnaire de danse from 1787, notes that contredanses are “almost always gavottes” (“Les Contredanses sont presque toutes des Gavottes,” 101). Gavotte tunes are characterized by consistent half-bar upbeats, and though they were traditionally notated with a time signature of 2, Reichart (1984) suggests that a tripled version notated in $\frac{6}{4}$ also existed, establishing a precedent for $\frac{9}{8}$ contredanse-gavottes. The New Grove article on the contredanse gives examples of both French and English publications that have re-notated the other’s music to conform to their barline.

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7. I can find no evidence that $\frac{6}{4}$ or $\frac{9}{8}$ tunes with a half-bar pickup were considered to be gavottes, but such tunes certainly existed in the contredanse repertoire from the earliest French publications.
placement preferences. Example 2.1 shows how Feuillet shifted the barlines of a Playford tune, “Vienna,” so that it would have the half-bar upbeat required for gavotte steps.

Example 2.2 shows the tune for Feuillet’s “Le cotillon” and its appearance in The Beggar’s Opera as Air XXII, with barlines shifted so that it has no upbeat.

**Example 2.1a.** “Vienna” from the 1698 edition of Playford’s Dancing Master.

![Example 2.1a](image1)

**Example 2.1b.** “Vienne” from Feuillet’s 1706 collection of contredanses (written-out repeats removed).

![Example 2.1b](image2)

**Example 2.2a.** “Le Cotillon” from Feuillet’s 1705 annual collection.

![Example 2.2a](image3)
Example 2.2b. Air XXII from The Beggar’s Opera.

The difference between French and English contredanse notation closely resembles the difference Rothstein (2008) has noticed between Germanic and Franco-Italian barring styles. Rothstein’s “Italian” barring has long anacruses (half-bar or longer) and often places cadences on downbeats. Although this style of notation was strongly supported by a number of German theorists, in the nineteenth century German composers were less likely to notate their music this way than French and Italian composers. Rothstein’s “Germanic” barring has cadences on relatively weak beats and short or no anacruses. English country dance tunes do not conform exactly to Rothstein’s Germanic barring style because they do sometimes cadence on downbeats, but weak-beat cadences are common and anacruses are consistently short. Tunes in the La Cuisse collection that do not have a half-bar anacrusis still tend to have cadences on downbeats. But the majority of French contredanse tunes conform precisely to Rothstein’s Italian barring style.

Both English and French contredanses and contredanse music spread all over Europe. While the English type was usually preferred outside of France, both versions were known
in several German-speaking cities. Mozart’s contredanses include exemplars of both English and French music, although the choreographies are unknown. The debate over the “correct” way to place barlines that Rothstein examines was a question of notation, not composition, and was probably only visible to those who had studied music theory. In contrast, French and English contredanse music, and the different alignments of steps associated with each, reached a fairly large audience in the eighteenth century. In Paris, English- and German-influenced contredanses were further distinguished from the purely French dances by the use of different steps (Reichart 1984, 307). Using Franco-Italian barring in an opera, for example, might not only be linguistically appropriate but also feel French because of the dance experience it evokes.

The French contredanse continued to evolve throughout the eighteenth century and into the nineteenth. In the 1760s, the first “contredanse allemande” was introduced in Paris and became very popular. This differed from the typical French contredanses only by not using French steps and including at least one figure with interlaced arms in a manner associated with Germans (Reichart 1984). More significant changes eventually led to the nineteenth-century cotillion and quadrille which became important social dances in the UK and USA and contributed to the development of American square dancing (Root, Moot, and Norton 2001).

8. Reichart (1984, 211) lists cities where some form of contredanse française was known.
Conclusion

Several features of the contredanse set it apart from other eighteenth-century dances and made it a particularly powerful builder of metrical and hypermetrical schemas. One feature was simply its popularity—dancing the contredanse formed a part of many people’s musical experience. Dances were often choreographed to popular tunes from operas, and tunes that began as contredanses may have made their way into concert music as well. Reichart has identified numerous unlabeled contredanses in the music of Haydn, Mozart, and Beethoven. Neumeyer (2006; 2015) builds on her work, pointing out the prevalence of contredanses as sonata-form finales. In 1834 an anonymous author wrote, “Most of the Parisian public almost always dance an opera before they see it. The works of our composers have two outlets to gauge their popularity: If they fail to strike our auditory sense directly, they will travel through our legs to arrive at our ear” (quoted in Clark 2002, 503). This author was referring to the quadrille, but the quadrille originated in the contredanse and its ability to accommodate a variety of rhythms and meters came from the contredanse. This quotation also highlights the recognized relationship between social dance and art music and the importance of dance as a way of learning music. In short, contredanses were a significant part of eighteenth-century musical experience, and any reconstruction of that experience ought to take them into account.

The contredanse’s schema-building power also came from its peculiar combination of consistency and flexibility. Contredanse music had to conform to relatively strict requirements for phrase structure and length, but it could be in almost any meter. Unlike other contemporary and older dances, the contredanse lacked a characteristic step and only had weak affective associations. In a way, contredanse phrase structure served as a
container that could hold traditional gestures of numerous other dances or non-dance topics. The choreographic emphasis on paths rather than steps further supported the development of generalized hypermetrical schemas. While all dances likely contain some version of the PATH schema, in contredanses the connection to this image schema is particularly apparent. Musical features could be associated with the general PATH schema rather than a specific dance or even the contredanse as a genre. And the musical features thus associated could be recognized in a variety of metric contexts. Contredanses gave dancers ways of understanding not just contredanse music, but music in general.
CHAPTER 3
ANALYSIS: CHOREOGRAPHY

In this chapter I examine the collection published by Sieur de la Cuisse in the 1760s to show how contredanses structured motion and space in ways that support hypermetrical hearing. Contredanses fostered hypermeter not only by aligning directed motion with musical units but also by aligning an entire choreographical grouping structure with musical grouping structure. Even more simply, contredanse choreography could independently generate both metric and grouping structure, without any music required. Choreographical grouping and meter in contredanses are built through nested periodic cycles of movement, repetition, and a hierarchy of well-defined spatial locations. Choreographical groups in the La Cuisse collection are overwhelmingly two, four, or eight measures long. Such regularity builds consistent correspondences between parts of a directed motion and specific hyperbeats of a hypermeasure. In the next chapter I show how motion characteristics, musical characteristics, and specific hyperbeats (e.g. the first of four) all map onto each other, but in this chapter I focus on the choreographical side. The detailed landscape of the contredanse and a repertoire of common figures or movement schemas contribute to the clarity of the choreographical grouping structure, which in turn makes correspondences between choreographical grouping functions and hyperbeats particularly robust.

The La Cuisse collection is particularly interesting to study for its choreography, because it includes both verbal descriptions of the figures of the dance refrains and bird’s-eye-view diagrams that correspond to the descriptions. Such thorough explanations of dance figures allow choreographers to be quite creative; they don’t have to rely
exclusively on dancers’ knowledge of common figures. Even within the incredible variety of choreography in the La Cuisse collection, standard movement schemas, the spatial landscape of the dance, and repetition are used in consistent ways to build a choreographical grouping structure based on two-, four-, and eight-bar groups. Other collections with simpler choreography might build even more robust correspondences between choreographical grouping functions and hyperbeats, but these are already quite strong in the La Cuisse collection. All of the La Cuisse dances can be found at the Library of Congress American Memory website, but for convenience those dances whose choreography I discuss in this or the next chapter have been gathered in the associated file.

**Terminology**

Sr. de la Cuisse’s *Le répertoire des Bals* is made up of 100 feuilles, ninety-eight of which contain a single dance. The remaining two feuilles contain multiple dances, or at least multiple dance refrains. “Les Quadrilles ou Contredanses extraites du Divertissement du Bal dans le 5e Acte du Bourgeois-Gentil-homme, Commedie” (feuille 54) is a set of three dance refrains intended to be performed successively between the verses. The first refrain, “Les Bourgeois,” will be danced after the first, fourth, and seventh verses, the second refrain, “L’Inconstance,” after the second, fifth, and eighth, and the third refrain, “Le Bataillon quarré,” after the third, sixth, and ninth verses. All three refrains are the same.

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9. The name of this set, “Les Quadrilles,” is highly suggestive, particularly because the nineteenth-century quadrille developed from a set of French contredanse refrains with the verses omitted. The most well-known quadrilles had fixed choreography that composers could fit new music to, but new quadrille choreography was developed as well.
length and are danced to the same music. Feuille 49, “La Strasbourgeoise,” includes two separate dances by different choreographers that can be performed with the same music. Those feuilles that include a single dance are made up of four pages. The first thirty dances have music on the front, figure descriptions on the second page, figure diagrams on the third page, and lyrics to the tune on the last page. The rest of the dances begin with a title page, followed by figure descriptions, diagrams, and music on the last page. Title pages often include a dedication in addition to the author of the dance. Occasionally a choreographer and a composer are listed separately, and occasionally the title page or the description page will explicitly state that both the figures and the tune are by the same author. For most dances, however, it is unclear whether the named author choreographed the dance, composed the tune, or both. Authors’ names are often accompanied by their position of employment, usually as a dancer or a dance master. Several authors are indicated to be amateurs and may only have initials published, if that. In contrast, some authors are clearly well-known and liked. A Mr. Robert contributed thirteen dances to the collection. Ten dances are attributed to a Mr. Carel or two people by that name. Alexis Bacquoy-Guédon, who went on to publish a method of ear training in meter for dancers, was the author of two dances in the La Cuisse collection.

The descriptions on the second page of each feuille are numbered so that they can be matched to the diagrams on the third page. The descriptions are of the figures specific to the individual dance, the dance refrain. The dance verses are usually referenced only by “Après le Rond ordinaire” before the numbered figures or “Le Rond ordinaire” given as figure no. 1, and “La Main” at the bottom of the page. A few dances call for changes to the dance verses. These range from simply adding a balancé and rigaudon before each
turn of the circle or turn with partners, to a complete set of different figures (usually assigned letters to distinguish them from the refrain). “Le Menuet des Festes d’Orléans” (feuille 21) is one such dance with its own dance verses.

**Example 3.1.** Dancers at their home position.

![Diagram of dancers in home position](image)

The diagrams on the third page appear in boxes with numbers corresponding to the descriptions on the previous page. (These numbers are most often Roman numerals, but sometimes switch to Arabic. When referring to diagram boxes in an individual dance, I will use whatever numerals are used in that dance.) Example 3.1 shows how dancers at their “home” positions are represented in the diagrams. The dotted square indicates what la Cuisse refers to as “Le Plan Géométral de la Contredanse.” The four different shapes represent four couples; within each couple the man’s shape is filled in (or dotted in the case of the cross) and the woman’s is unfilled. The shapes each have a tiny circle on one side or point, indicating the direction each dancer is facing. This was an innovation introduced in the 30th dance, not only to indicate the direction dancers should face but also to make it easier to distinguish which hand they should be using at any given point. The numbers in the figure were also introduced in the second volume to make it easier to
refer to specific couples. They are not a part of the diagrams, but rather a way of connecting the diagrams to the corresponding descriptions. While some contredanse figures involve all eight dancers doing exactly the same thing, many involve two or four groups of dancers whose roles are all distinct. These groups can be created by gender, as when the women form a circle in the center while the men move around the outside. The other common division is by position on the square. It is rare for one couple to be singled out, but the first and third couples often constitute a group which I will sometimes refer to with the modern square dance term “heads.” The second and fourth couples are the “sides.”

While the La Cuisse choreography varies enormously, it often employs some common figures that have names and do not need to be described in detail. Table 3.1 lists the most important of these named figures, many of which are described in a preface to the La Cuisse collection. I will describe some of the figures in Table 3.1 in the course of this chapter, and all of them appear with explanations in the Appendix.

Table 3.1. Some common named contredanse figures.

<table>
<thead>
<tr>
<th>Allemande</th>
<th>Moulinet</th>
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</thead>
<tbody>
<tr>
<td>Carré</td>
<td>Rond</td>
</tr>
<tr>
<td>Chaine</td>
<td>Poussette</td>
</tr>
<tr>
<td>Chassé</td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td></td>
</tr>
</tbody>
</table>
Spatial Orientation

Contredanses establish a number of imaginary landmarks that help dancers avoid collisions in addition to anchoring named figures. The most important landmark for dancers to know is their home position. Dance refrains always begin with all dancers at home, and they usually involve everyone leaving their home position and returning at least once. One way to sort dances by difficulty level is to consider how far away from home dancers move and how complicated the path they must take to return is. La Cuisse acknowledges this on the description page for “Ma Favorite” (feuille 17)—this dance is particularly easy because the men begin and end every pair of figures at their home. A much more complex set of figures that take all of the dancers away from home and then bring them back appears in “La Jolie d’Orleans” (feuille 23). In the first figure, two pairs of dancers trade places, while the other two pairs dos-à-dos. In the second figure, the roles are swapped: Those who did the dos-à-dos now trade places with someone, while those who are already away from home dos-à-dos with whomever is nearest. By the end of the second figure, everyone has moved away from home. Figure three has no net effect on the dancers’ positions, but figure four brings them home in the following manner: those dancers at the ends of the lines in figure three return home along the outside of the ring. The other four dancers form a moulinet, a little mill or star in the center. They turn the moulinet a quarter of the way around and drop off the men at home, then the women continue halfway around to their own home. Maintaining awareness of one’s home as a sort of personal north star would be particularly helpful for those in the moulinet—and those who are not in the moulinet in the fourth figure will be in one in the eighth figure.
Awareness of other landmarks can help situate one’s home position. The other dancers’ home positions often serve as goals for movements, as they did in “La Jolie,” so it is useful to have awareness of them as defined stations. Awareness of where the sides and corners of the square are is also useful—chassés sometimes involve movement to a corner, and carrés always do. When dancers perform movements in pairs they are usually with whoever’s on the same side of the square as them. At the beginning of the dance, this would mean partners dance together, but plenty of figures are danced with someone other than one’s partner. Some dances include an allemande or balancé “aux quatre coins,” which means dancers face the dancer just around the corner from them. Ronds and moulinets in the center of the square are common enough that dancers might imagine a circle within the square that also serves as a landmark.

Not all of the dances in the La Cuisse collection employ the square formation, but the importance of spatial orientation and even the location of landmarks is essentially the same in the other dances. Fourteen dance refrains place the dancers in two lines of four facing each other. Dances in this four-facing-four formation generally employ all the same landmarks as dances in a square formation, the only difference being that the four corners of the square serve as home positions while two sides do not (though those sides are often still used as landmarks within the dance refrain). Two other dances have unique formations. “Les Plaisirs Grecs” (feuille 74) is for six dancers arranged in two lines of three, with partners standing across from each other. “La Languedocienne” (feuille 65) is for eight dancers in a square plus an extra man in the center. Home positions around the

10. In modern square dancing the person in this position is referred to as one’s “corner,” but this designation may remain attached to the person rather than the relative spatial location.
square are shifted so that the men occupy the corners of the square while the women are placed at the center of each side. In both “Les Plaisirs Grecs” and “La Languedocienne” there is less movement away from home than in other dances, which makes sense for dances in an unfamiliar formation where dancers are more likely to become disoriented.

**Figures and Schemas**

The La Cuisse collection uses the term “figure” in multiple ways, a symptom of the complexity of identifying discrete units of movement in the contredanse. There is a fundamental difference between the named figures listed in Table 3.1 and the numbered and boxed figures that appear in the dance descriptions and diagrams. Most named figures are members of categories defined by a path of movement, a pattern of interaction with other dancers, particular arm/hand holds, a specific formation of dancers, or some combination of these features. For example, the category of “chaine” includes any movement in which dancers alternately take right and left hands as they weave around each other. Some members of each category may have their own names, such as the grande chaine and the petite chaine vis-à-vis. Some steps are used as named figures, particularly balancé and rigaudon. In contrast, numbered figures in a specific dance are units of time—they include everything that takes place in a two-, four-, six-, or eight-bar segment. A numbered figure could contain a single named figure, such as the grande chaine, but it often contains two or more. Named figures can be combined simultaneously—four dancers might form a ring in the center of the square while the other four remain on the sides for a turn. Named figures can also be combined sequentially, as when a tour d’Allemande is followed by a rigaudon, or they can be
interlaced, as when a tour d’Allemande is performed at every position in a course around the square (“La Mouvante,” feuille 95). Named figures can also be performed simultaneously to make up a numbered figure.

Most baroque couple dances had clearly defined characteristic steps that served as choreographic units. In contrast, the contredanse relied on the much more slippery “figure” in both its named and unnamed incarnations. Rather than being a single invariable step, the contredanse figure would be more accurately described as a collection of categories or schemas, very much like those Gjerdingen (2007) discusses in galant music. A musical schema is an abstract category and “is likely in no particular key, may or may not have a particular meter, probably includes no particular figurations or articulations, may be quite general as to the spacing of the voices, their timbres, and so on” (Gjerdingen 2007, 528). The features that contredanse movement schemas do not specify are different, but similarly numerous. The most common features that could vary between different realizations of a named contredanse figure are number of dancers, relationships of those dancers to each other, and location within the dance square. The “chaine” schema can be realized by four, eight, or even three dancers (“La Languedocienne,” feuille 65, box X), and these dancers need not have any particular relationship to each other (i.e. a four-person chaine does not have to be performed by the head couples; it could be nearly any combination of four dancers). Chains can be performed in a variety of locations on the square and with many different paths of movement. While there are named types of chaine that do specify location and path, in other cases “chaine” conveys so little information that it loses its usefulness as a figure description. “L’Eguille” (feuille 70) describes two figures in detail (II and III), only
referring to them as a chaine when instructing dancers to repeat the first half with the men’s and women’s roles switched. Since some schemas specify features that others do not, two schemas may be realized simultaneously in a single movement—for example, a poussette could be performed with an Allemande hand-hold (this appears to be prescribed in the diagrams occasionally but it is not described as such). How box IX of “La St. Géorge” (feuille 62) is classified depends on whether one defines choreographic schemas primarily by formation or by path of movement. The dancers form two four-person circles, suggesting the “rond” schema. But they do not turn the circles in place, instead moving around the other circle as in a poussette, though poussettes are typically performed by couples moving around each other, not rings of four. The path that each circle takes is more-or-less circular, so perhaps this figure could be considered a rond after all. The description of this figure suggests another classification altogether, as a passe dos-à-dos.

**Time-Space Correspondences**

Although the way contredanse movement schemas are realized in space is subject to considerable variation, their realization in time hardly varies at all. Boxed figures will often divide named figures into segments, or combine two or more named figures, but this is not because named figures have flexible lengths. Most of the named figures described in La Cuisse’s preface are given exact lengths in measures. These figures usually require two, four, or eight measures, with a few expandable to sixteen or even thirty-two. Dance collections that simply list a few figures under each tune rely on the fixed lengths of named figures, but the La Cuisse collection can incorporate unusual realizations of
named figures or figures that have no names because of the diagram boxes that indicate length.

Table 3.2 shows lengths of boxed figures for dances 17–100, those that include explicit indications of measures required. The three different refrains of “Les Quadrilles” (feuille 54) are treated as separate dances in this table. In many cases, the way dances are divided into boxed figures is somewhat arbitrary—as I will discuss below, two- and four-bar figures can often be considered components of larger figures, and some longer named figures can be broken down into two- or four-bar segments. There may also be occasional mistakes in the number of measures assigned to a figure—at least two dances require a number of measures based on their diagrams that their music cannot provide. Despite these considerations, however, it is clear that dancers were overwhelmingly familiar with two-, four-, and eight-bar movements. Six-bar figures appear relatively infrequently; six-bar figures that do not combine with a two-bar figure to make an eight-bar phrase are extremely rare. The three boxes with other lengths include two of one measure each. The third figure with unusual length is a twenty-measure section in the “Allemande du Devin de Village” (feuille 88) during which the first couple is instructed to improvise a pas de deux. Those twenty measures will likely be divided into groups of four, but no particular way of doing so is prescribed.
Table 3.2. Lengths of boxed figures in the La Cuisse collection.

<table>
<thead>
<tr>
<th>Length</th>
<th>No. of boxed figures</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two measures</td>
<td>219</td>
<td>24.0%</td>
</tr>
<tr>
<td>Four measures</td>
<td>583</td>
<td>63.8%</td>
</tr>
<tr>
<td>Six measures</td>
<td>24</td>
<td>2.6%</td>
</tr>
<tr>
<td>Eight measures</td>
<td>85</td>
<td>9.3%</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

The consistency of four- and eight-bar lengths mean that hypermetrical schemas can be developed that match choreographical grouping function to measures or hyperbeats. The variety of figures is too great for individual named figures to be mapped to hypermeasures in a consistent way, but all figures are part of choreographical groups that do have consistent features—they can nearly always be understood as realizations of an underlying SOURCE-PATH-GOAL schema. Figures generally begin and end at well-defined locations on the dance square, and when they do not, they can often be understood as part of a group of figures that does. A group beginning, therefore, is associated with setting out toward a definite goal, and a group ending with arriving at the familiar location one was aiming for. Figure groups that bring dancers to their home positions would carry a particularly strong sense of completion and satisfaction. Figures in which dancers stay in place serve to embellish or emphasize the source or goal of a path, particularly when they can be grouped with another figure that does involve movement to a different location. Figure groups in which dancers cover very little ground, like “Les
Fêtes d’Orleans,” (feuille 19) boxes 1–2, serve more as explorations of a single location, a choreographical “tonic prolongation.” Dancers move a short distance from their home and immediately return. Since four- and eight-bar figures or figure groups are generally made up of smaller component figures, measure two of four and measure four of eight are associated with being half-way there, or otherwise being at the midpoint of a movement.

Thus far I have only discussed choreographical groups, not meter or hypermeter as generated by movement alone. It may seem strange to refer to measures entirely as units of movement rather than music, but an individual dancer could easily experience nested periodic cycles of movement and designate one of those cycles as the “measure” even in the absence of music. Music is not required for meter; it serves rather to keep multiple dancers’ meters, i.e. movement cycles, synchronized. In movement, as in music, grouping structure and meter are distinct and can align with each other in different ways. It is not obvious which measure of a four-bar movement would be most likely to receive the primary hypermetric weight, and different dancers may not agree just as music listeners do not always agree on grouping and metric boundaries.\textsuperscript{11} However, I think it most likely that either the first measure or last measure of a group would be the one perceived as strongest metrically, particularly because in contredanses those are the measures most often attached to specific locations. The choice of beginning-accented or end-accented groups may be different for individual dancers, and it may be influenced by the music more than the movements alone. The directed nature of contredanse motions inclines me to believe that end-accented groups are at least as likely as beginning-accented, if not

\textsuperscript{11} Still (2015) touches on a number of ways listeners might hear meter differently in addition to ways ballet dancers’ experience of meter from dancing differs from ways musicians talk about metaphorical motion in music.
more so. As I discuss in the next chapter, certain features of the music support this interpretation. Table 3.3 therefore presents the pairing of movement grouping functions with hyperbeats in a dance version of Ito’s (2013) 2-3-4-1 schema, though the 1-2-3-4 version can be easily imagined by shifting the hyperbeat numbers and corresponding weights.

**Table 3.3.** Correspondences between movement and hyperbeats in the 2-3-4-1 schema.

<table>
<thead>
<tr>
<th>Type of attribute</th>
<th>Hyperbeat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Degree of metrical weight</td>
<td>Unweighted</td>
</tr>
<tr>
<td>Part of movement group</td>
<td>Beginning; setting out toward a goal</td>
</tr>
</tbody>
</table>

**Choreographical Grouping Structure**

Contredanse choreography does more than match components of a movement schema to each hyperbeat in a four-bar hypermeasure—it builds an entire hierarchical grouping structure analogous to the grouping structure of music, extending to the level of entire dance refrains. Because this grouping structure is constructed through movement and can be seen and felt, it provides much more support for higher levels of hypermeter than auditory stimuli alone. Named figures or movement schemas contribute to the grouping structure, but repetition and relationships between spatial locations serve just as much if not more.
The distinction between “home” and “away” locations within a contredanse set helps generate a hierarchy of figure endings or movement cadences that are clear even in unique, unnamed figures. At the beginning and ending of any named or boxed figure, all dancers are usually at a well-defined landmark—their own home, another dancer’s home, a corner of the square, or a station in a ring in the center. Exceptions usually still have the dancers forming lines or circles, so they can orient themselves around each other. Lines may be oblique, as in “La Jolie,” box III, but more often they intersect the center of the square as in “Le Jardin Enchanté,” (feuille 53) boxes XIV and XVI. However landmarks are established, their existence fosters a clear sense of arrival at the ends of figures that take dancers from one landmark to another. The simple existence of a home position makes it easy to identify any possible cadence in a contredanse as either open or closed: if all dancers have arrived back at their home position, it is a closed cadence; if not, it is open. Musical modulations take us away from home only in a metaphorical sense, but though a dancer’s home position is only temporarily imagined, the motion away from and towards it is real. There is a question of how much other dancers’ arrival or non-arrival at home affects how each individual dancer perceives a movement cadence. If one dancer arrives home but their partner does not, obviously the dance is not over yet. But in other cases individual dancers’ perceptions may be based only on their own location relative to home.

Attention to the endpoints of figures—both in space and in time—is particularly important in a group dance like the contredanse. The location at which a figure ends will be the location from which the next figure begins, so mistakes in ending can affect more than one figure. Depending on tempo and refrain length, dances could last anywhere
from five to fifteen minutes long. There is a good chance that someone, if not everyone, will make a mistake in the course of the dance, but not all mistakes are created equal. If a dancer takes an incorrect path but still arrives at the correct goal on time, the next figure still has the potential to be executed flawlessly. If the dancer does not arrive at the correct goal at the correct time, not only has the current figure been disturbed but the next one will be as well. The relative importance of beginning and ending points can also invite deliberate “mistakes”—if a couple is not interacting with any other dancers in a figure, for example, they can do whatever they like as long as they begin and end in the correct location. They could replace tours d’Allemande with chassés. They could simply stand and gossip, or rest and catch their breath. They could bother a couple in another square! In this sense the spatial locations that dancers are to occupy are more essential to a contredanse’s structure than the figures or movements between those locations.

In the La Cuisse collection, repetition and different movement cadence types are used to create parallel periods and occasionally sentence forms entirely in movement. “Les Amusemens de Clichy” (feuille 18) contains an example of a parallel period in boxes IX–XII of its diagrams. The first two figures take all of the dancers away from home—specifically, each couple ends up on the side of the square across from their home—and the third and fourth figures repeat the first two to bring everyone home. Boxes XI and XII are not exactly the same as boxes IX and X—the heads and the sides trade roles, which changes the orientation of the line of four dancers, and means each individual dancer may not experience this period as parallel. Two more definitive parallel periods occur in “Les Fêtes d’Orleans” (feuille 19). At the end of the first three figures, everyone has traded places with their partner. The same series of figures in boxes 4–6 takes
everyone home again. The choreographic phrases that make up this parallel period are
sentences—dancers turn with their corner for two measures, turn with their partner for
two measures, and in the final four measures chassé to trade places with their partner and
rigaudon. Boxes 7–10 constitute a parallel period much like that discussed in “Les
Amusemens de Clichy.” Boxes 7 and 8 take each couple across the square. Boxes 9 and
10 bring them back home again in almost exactly the same manner (in the first phrase of
this period, couples 3 and 4 made arches for couples 1 and 2 to pass under; in the second
phrase these roles are reversed, but this is a relatively small change).

Replication and distinctions between movement cadences can be used on longer
segments than the eight-bar sentences and periods I have discussed, giving choreography
a hierarchical grouping structure analogous to that of musical grouping and meter. As
already noted, at the highest level French contredanses have a verse-refrain structure.
Replication of the refrain generates this structure, and it is primarily repetition that creates
groups within the refrain as well. The second half of some dance refrains is a repetition of
the first half but with roles switched (men and women or heads and sides) or movement in
the opposite direction. “L’Éguille” (feuille 70) is such a dance—the men’s and women’s
roles are simply swapped between the two halves of its refrain. “La Jolie d’Orleans”
(feuille 23) also has an AA’ refrain, but with a more complex role-switch. In box I, the
head men and side women change places and in box II the side men and head women
change places. Boxes V and VI reverse the order of these groups. Each half of the refrain
of “La Jolie” is a 16-bar sentence—a four measure figure is immediately repeated, and
then eight measures of movement bring the dancers home. “La Pontlevoy” (feuille 60) is
an extreme example of how repetition and movement cadences can build choreographic
groups on multiple levels. The refrain contains three groups of sixteen bars, each a parallel period or an eight-bar phrase repeated. Within the first and third groups of sixteen bars, repetition of a two-figure segment creates four-bar groups.

Choreographic repetition, especially when immediate, can encourage dancers to understand figures presented in separate diagram boxes as part of a single coherent movement. This is especially true when the boxed figures that are repeated are actually segments of a longer named figure, such as a carré or a course. Occasionally such long figures are broken into separate diagram boxes for no apparent reason, but other times they are split in order to insert other figures between the segments. The larger, overarching figure helps maintain a sense of coherent movement. A simple example of this is “La Mouvante ou Le Mouvement Perpetuel” (feuille 95), in which each couple makes a complete course around the square with a tour d’Allemande at each side. “La Tiroloise” (feuille 68) likewise has a complete course punctuated by allemandes at each side of the square, but with an additional eight measures of allemandes in between the two halves of the course and again after it is over. The amount of time involved is long enough that it may be a stretch to consider the course a single unified path, but a sense of picking up where one left off when beginning the second half of the course seems likely. Another interruption by allemandes occurs in “La Belle-Géorgette” (feuille 83). Box X contains half of a carré or grand square, after which everyone turns with someone who is not their partner before resuming and completing the grand square.

Boxed figures that flow smoothly into the next can also encourage perception of both figures as part of a single fluid movement. In some cases smooth flow occurs because a particular figure serves primarily to prepare for the next. Box IX (and its repetition, box
XIII) in “La Nouvelle Provence” (feuille 29) mainly just instructs the dancers how to form the circles that they need for the next figure. In this sense, boxes IX and X constitute a single eight-measure figure; while two discrete parts can be distinguished, each part requires the other to create a meaningful motion. Similarly, boxes I–IV of “La Fleury” (feuille 30) really only describe two figures. Two couples (the heads in boxes I and II and the sides in boxes III and IV) move into a line creating arches across the square and remain in place, while the other couples complete a continuous 8-bar motion through the arches. Box I might be understood to instruct the head couples for eight measures, while box II instructs the side couples for the same eight measures. Boxes V–VIII function similarly. “La Folie ou le Gôut du Siècle” (feuille 89), boxes XIII and XIV, are the only two one-bar figures in the collection, but the second of these is obviously the primary movement. Box XIII simply shows how the dancers should move from their home positions on the sides of the square to the double moulinet of box XIV. When this movement is repeated in box XVII, the dancers are already in the double moulinet position, so it is represented as a single two-bar figure.

The penultimate figure of “Les Fêtes d’Orleans” (feuille 19) is not preparation for the final figure, but there is a cleverly smooth transition between them. Box 14 is what modern square or contra dancers would call a basket swing—the men, holding hands in a ring outside the ring of women, duck under the women’s arms so that both the men and women have their hands behind each other’s backs. In this formation they turn the ring of eight all the way around. At the start of the final figure each dancer already has one arm behind their partner. To complete the last figure, each dancer puts their other hand behind their back to capture their partner’s hand, and as couples they turn in place. By
the ninth repetition of the refrain, if not earlier, these last two figures would likely blend smoothly into a single motion—turn the entire circle around, then continue into a partner turn with a slight adjustment of the arms.
CHAPTER 4
ANALYSIS: MUSIC AND CHOREOGRAPHY TOGETHER

Music in the La Cuisse Collection

The music for “Ma Favorite” (feuille 17), shown as Example 4.1, displays numerous features typical of the tunes in the La Cuisse collection. The first few dances in the collection contain only a treble clef line, but “Ma Favorite,” like most dances after the fourteenth, includes a bass line as well. Dances with a time signature of 2 make up about a quarter of the collection; another quarter are in $\frac{6}{8}$ and aside from the single menuet, the rest are in $\frac{3}{4}$. Table 4.1 shows the frequency of various length upbeats. “Ma Favorite” has the most common half-bar upbeat reminiscent of the gavotte.

Both the music and the choreography of “Ma Favorite” are attributed to “Sieur D*** Amateur.” Table 4.2 lists people who have explicitly been identified as composers in the La Cuisse collection, or who can be identified as composers of the operas the music has been taken from. The dance tunes in this collection have two to five strains; “Ma Favorite” is typical with three. The first strain cadences in the tonic D major, the second in the dominant, and the third in the relative minor. This is a common pattern, though just as often the third strain (and fourth, if it exists) is in the parallel minor. Only eight out of 100 dance tunes are in an overall minor key, but 33 of the major-key tunes move to the parallel or relative minor. Sections in the parallel minor key are usually notated as if they are a second piece of music, with the clefs redrawn and “Mineur” written above.
Example 4.1. Music page for “Ma Favorite.”
Table 4.1. Upbeat lengths in the La Cuisse collection.

<table>
<thead>
<tr>
<th>Upbeat length</th>
<th>Number of tunes</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>16</td>
</tr>
<tr>
<td>1/6 measure</td>
<td>4</td>
</tr>
<tr>
<td>1/4 measure</td>
<td>4</td>
</tr>
<tr>
<td>1/2 measure</td>
<td>75</td>
</tr>
<tr>
<td>2/3 measure</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 4.2. Composers represented in the La Cuisse collection.

<table>
<thead>
<tr>
<th>Composer</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacquoy-Guédon</td>
<td>Nau</td>
</tr>
<tr>
<td>Daquin</td>
<td>Petit</td>
</tr>
<tr>
<td>Denoyers</td>
<td>Philidor, François-André Danican</td>
</tr>
<tr>
<td>Dubois</td>
<td>Regnault</td>
</tr>
<tr>
<td>Duport pere</td>
<td>Mlle. Robert</td>
</tr>
<tr>
<td>Gervaise</td>
<td>Rousseau</td>
</tr>
<tr>
<td>de la Hant[t]e</td>
<td></td>
</tr>
</tbody>
</table>

Returning to “Ma Favorite,” what look like repeat signs are simply indicators of strain boundaries. This is confirmed by the dance diagrams for “Ma Favorite,” shown as Example 4.2, some of which include, in addition to the number of measures for each figure, an indication of which section of music corresponds. “4 mesures de la 1ère Reprise” in the first box means four measures of the second strain—the first strain would have been played once or twice for the dance verse, which is not shown in the diagrams. After
four more measures, box III goes with “4 du Rondeau,” meaning the first strain. First
strains are referred to throughout the collection as rondeau or commencement, while
subsequent strains are all reprises. According to the diagrams, “Ma Favorite” should have
eight measures of the first reprise followed by eight measures of the rondeau theme, then
eight measures of the second reprise once again followed by the rondeau theme. Since
each strain of “Ma Favorite” is eight measures long, the form of the music for the dance
refrain is baca, with no immediate repetition of any strain.

The repeat scheme for “Ma Favorite” does appear on the music page as well, but in a
verbal note at the bottom rather than within the music notation. “Ma Favorite” is to be
played “en Rondeau,” one of the two most common repeat schemes in the collection.
The sequence of key areas in “Ma Favorite” is typical for rondeau forms—the first strain,
which will accompany the end of the dance refrain as well as the dance verses, cadences
in the tonic while the other strains end in other keys. The other common repeat scheme is
simply to play the reprise or each reprise twice. In tunes with three or more strains, both a
simple repeat and a rondeau form can be combined—for example, the first two strains
might be played en rondeau, then the third and fourth played twice each. When the
music includes a strain or two in the parallel minor, it is usually treated as two tunes
played back-to-back, each with its own internal repeat scheme. Playing each tune en
rondeau is fairly common, creating aabaccdc forms (where the first two a’s accompany
the dance verses and the rest the refrain).
Example 4.2. Diagrams for “Ma Favorite.”
In groups of strains that are to be played en rondeau, like “Ma Favorite,” the first strain always cadences in the tonic, while subsequent strains may cadence in the dominant or relative key. For groups of strains not meant to be played en rondeau, the reverse is true: the final strain will cadence in the tonic, but earlier cadences can be in the dominant or relative key. In tunes where the c section is in the parallel minor and meant to be played en rondeau with the d section, the d section is often in the relative major of the c section’s minor key. These relationships between repeat schemes and tonal areas ensure that the end of the dance refrain aligns with a cadence in the tonic, although if a dance moves to the parallel minor this final cadence is generally in that minor tonic. The existence of a home location that dancers always return to along with well-defined locations away from home supports the metaphor of keys as locations with the original tonic as the “home” key, although it is relatively weak support—dancers’ arrivals at home are only consistently aligned with cadences in the tonic at the ends of dance refrains.

“Ma Favorite” provides an excellent example of the typical grouping structure based on powers of two. Each strain is eight measures long, and each reprise can be grouped with the rondeau strain that follows it to form a sixteen-bar group. The strains can also be divided easily into four-bar groups and then two-bar groups. The last half-bar of each strain contains a clear arrival on the downbeat and nothing else, a pattern maintained in nearly every tune in the collection. (If anything does happen after the downbeat in the last bar of a strain, it is likely to simply be a repeated pitch or pitch-class.) The two- and four-bar groups in “Ma Favorite” conclude in a consistent way both melodically and rhythmically—the downbeats of even-numbered measures have longer rhythmic values than those immediately before, and often contain appoggiaturas. How the final downbeat
of a musical group (that is not also the final downbeat of a strain) is marked rhythmically
varies between dances, but does not usually vary much within a single dance. Repetition
of more than just rhythmic patterns contributes to the grouping structure—in the first
and third strains of “Ma Favorite,” the first two measures are repeated almost exactly in
the fifth and sixth measures, creating prototypical periods. The second strain has even
more repetition, creating a theme type Caplin (1998) would identify as presentation +
consequent, a hybrid sentence/period form that he suggests was little used precisely
because it involves so much repetition (63).

Twenty-four of the tunes in the La Cuisse collection lack the half-bar upbeat
traditionally associated with gavottes and French contredanses. Unlike their English
counterparts, however, these tunes still consistently place cadences on downbeats.
Example 4.3 collects strains from all of the 2 tunes with no upbeat.

Nearly all of these contain a single pitch-class repeated in the final measure, and an
octave leap in the bass in the penultimate measure is common. When the last measure’s
rhythmic pattern is broken to include notes of less than a beat, as in the b section of “La
Malvielle,” the harmony remains constant throughout the measure. Cadences in measure
four are similar in that the cadential harmony arrives on the downbeat and lasts for a full
measure, but it is more likely to be ornamented with an arpeggio, a double neighbor
figure, or a scale.
Example 4.3a. First strains from $\frac{3}{4}$ tunes without upbeat.

La Nouvelle Anglaise, feuille 10

La Strasbourgeoise, feuille 49

La Languedocienne, feuille 65

La Tiroloise, feuille 68

La Thérèse, feuille 73

La Coaslin, feuille 77

La Malvielle, feuille 78

La Marselloise, feuille 80

Le Pas de Calais, feuille 86

La Folie, feuille 89
Example 4.3b. Second strains from \( \frac{2}{3} \) tunes without upbeat.

La Nouvelle Anglaise, feuille 10

La Strasbourgeoise, feuille 49

La Languedocienne, feuille 65

La Tiroloise, feuille 68

La Thérèse, feuille 73

La Coaslin, feuille 77

La Malvielle, feuille 78

La Marselloise, feuille 80

La Folie, feuille 89
“Les Pas de Calais” uses this distinction between a middle cadence and a final cadence to communicate that its b section is longer than the usual eight measures. As shown in Example 4.4, measure four contains a typical two-quarter-note cadential gesture, elaborated by an arpeggio in the bass. Measure eight includes both the bass arpeggio and a turn in the treble part. Measures five through seven are repeated as nine through eleven, with the least ornamented cadence appearing at the very end. Tunes with an eighth-note upbeat (in ½ or ⅝) or a quarter-note upbeat (in 2) conform to the same rhythmic and harmonic pattern for final cadences.


Theme Types and Schemas

Table 4.3 shows strain lengths for all 100 tunes in the La Cuisse collection. Eight-measure strains overwhelmingly predominate, but the importance of four- and sixteen-bar groups can be seen as well. All but five strains can potentially be divided into four-bar groups. The sixteen- and twenty-four-bar strains are clearly made up of eight-bar groups. Dance refrains are most often 32 or 48 measures long, suggesting that eight-bar strains
might regularly be paired to create sixteen-bar groups. As Neumeyer puts it, “the contredanse was firmly rooted in ‘quadratic syntax’” (2006, 4).

**Table 4.3.** Strain lengths in the La Cuisse collection.

<table>
<thead>
<tr>
<th>Strain length</th>
<th>Number of strains</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 measures</td>
<td>1</td>
</tr>
<tr>
<td>8 measures</td>
<td>266</td>
</tr>
<tr>
<td>10 measures</td>
<td>4</td>
</tr>
<tr>
<td>12 measures</td>
<td>17</td>
</tr>
<tr>
<td>16 measures</td>
<td>15</td>
</tr>
<tr>
<td>20 measures</td>
<td>6</td>
</tr>
<tr>
<td>24 measures</td>
<td>2</td>
</tr>
<tr>
<td>30 measures</td>
<td>1</td>
</tr>
</tbody>
</table>

Neumeyer (2006) has classified all of the first strains from the La Cuisse collection by Caplin’s (1998) theme types; his Table 3 is shown as Table 4.4. Neumeyer notes that the predominance of periods is shared by other eighteenth-century contredanse collections and that it would therefore be inaccurate to say that periods are rare in the classical era. The first strains only account for about a third of the total number of strains in the collection, but periods are common in strains other than the first as well. As noted above, both the first and third strains of “Ma Favorite” are eight-measure parallel periods.
Seventy-seven dances in the La Cuisse collection have a third strain; in about half of these the third strain is in the parallel minor of the opening key and might actually be considered the first strain of a second tune. Periods predominate among these parallel minor strains. Example 4.5 is the music for “La Bellon,” (feuille 35) with a period in the parallel minor for its third strain. Note how the clefs and time signature are redrawn for the minor section.

Table 4.4. Table 3 from Neumeyer (2006): theme types in the first strains of La Cuisse contredanses.

<table>
<thead>
<tr>
<th>Theme type</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>59</td>
</tr>
<tr>
<td>Period with modulating consequent</td>
<td>26</td>
</tr>
<tr>
<td>Period with half cadence</td>
<td>2</td>
</tr>
<tr>
<td>Sentence</td>
<td>2</td>
</tr>
<tr>
<td>Hybrid (antecedent + continuation)</td>
<td>3</td>
</tr>
<tr>
<td>Hybrid (presentation + consequent)</td>
<td>3</td>
</tr>
<tr>
<td>16-measure period</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
<tr>
<td>(total)</td>
<td>100</td>
</tr>
</tbody>
</table>
Example 4.5. Music for “La Bellon.”
One cannot say that anything other than the period is common among first strains in the La Cuisse collection, but I would like to acknowledge the hybrid type that Caplin leaves unnumbered due to its scarcity: presentation + consequent. This is one of only two hybrid types Neumeyer identifies among the La Cuisse first strains. Example 4.3 above includes two themes of this type, from “La Tiroloise” (feuille 68). As Caplin explains, it is highly repetitive—the presentation contains a basic idea and its repetition, and the consequent begins by repeating the basic idea. But in contredanse music, such repetition can be an advantage. It makes two-, four-, and eight-bar groups crystal clear, helping dancers stay oriented on multiple levels of meter and hypermeter.

Unsurprisingly, some of the phrases in the La Cuisse dance tunes are realizations of the common galant schemas that Gjerdingen (2007) discusses. Example 4.6 collects five of the sixteen strains that include a Fonte. “La Nouvelle Provence” and “Les Quatre Vents” have been re-notated in $\frac{3}{4}$ for easier comparison, but these examples are otherwise unaltered. The Fonte has two parts, the first in a minor key and the second in the major key one step lower. Within each part, Gjerdingen (2007) identifies the central characteristics as motion from scale degree 4 to 3 (usually in the melody) and motion from scale degree 7 to 1 (usually in the bass). Many of the Fontes in the La Cuisse dances display these characteristic scale-degree motions, such as “La Nouvelle Provence.” But as can be seen in Example 4.6, there are additional characteristics the La Cuisse Fontes share, some of which may be specific to their usage in contredanse music. With one exception, they are four measures long, and all but one occur at the beginning of a strain.
Example 4.6. Five strains beginning with a Fonte and cadencing in G minor.

“La Mienne,” feuille 2, fourth strain

“La Nouvelle Provence,” feuille 29, fourth strain

“Les Delices de la Paix,” feuille 31, second strain, first half

“La Nouvelle Carelle,” feuille 59, fourth strain

“Les Quatre Vents,” feuille 93, fourth strain

The La Cuisse dances are also remarkably consistent about what follows a Fonte. Most of the Fontes occur after a strain in a minor key (usually the parallel minor of the opening key). The first half of the Fonte centers on the subdominant of that minor key, the second half on the mediant. Together, those four measures create a digression to the relative major, after which the music almost invariably returns to the minor key it was in before the Fonte. This supports Gjerdingen’s connection of the Fonte with “a detour in a narrative path” (2007, 98). The three Fontes I have identified in major key contexts
likewise bring about a return of the original key: both take place after the first strain has
cadenced in the dominant.

**Alignment of Musical and Choreographical Grouping Structures**

The hierarchical grouping structure of contradanse music coordinates easily with the
hierarchical grouping structure of the choreography. On some levels the alignment might
not be precise, but the boxed figures of the choreography never overlap musical strain
boundaries. In other words, cadences at the ends of musical strains always coincide with
the end of a choreographical group, although that group might be part of a larger group
still ongoing. The music in the La Cuisse collection contains more repetition than the
choreography, so repetition in the music does not always correspond to repetition of
choreography because the same musical strain might have to accompany dance strains
with different structures. However, repetition in the choreography does usually
 correspond to musical repetition. As we have seen, eight-bar periods are extremely
common, providing ideal accompaniment for a four-bar figure that is immediately
repeated. In some cases an eight-bar musical strain will simply be a four-bar phrase
repeated. The third strain of “La Strasbourgeoise” (feuille 49) is essentially a two-bar
segment played four times, a feature Mr. Deshayes takes advantage of (in the “Autre
Figure,” the second dance to the same tune in feuille 49) by choreographing a series of
two-bar half-turns to that music. Larger-scale choreographic repetition will usually be
accompanied by either immediate repetition of a musical strain, or occasionally a return
to the rondeau theme. “La Windsor” (feuille 87) provides an example of the latter—after
the grand rond, the second strain must be played three times en rondeau to provide
enough music for the dance refrain. The first iteration of the second strain and the first return to the rondeau theme accompany the same set of figures. Musical rondeau forms more often accompany choreographic repetition on an even larger scale. For example, a tune played in the form ababa or abaca will often go with a dance in the form abcbc, where the dance “a” is the verse. Tunes in which each strain is simply played twice often accompany dances in which each set of figures is danced twice.

Several features of this French contredanse music together with the directed nature of the movements suggest musical groups on multiple levels would be perceived as end-accented. Since the contredanse established several clear landmarks on the dance floor, dancers almost always begin movements with a clear goal in mind, and the end of a figure brings a sense of arrival. A gradual heightening of anticipation over the course of a four-bar movement would prepare dancers to hear a four-bar musical phrase as a gradual build-up to a hypermetric downbeat at the end. The half-bar upbeats found in most of the dance tunes ensure that measure-level groups are end-accented—i.e. on the measure level, the grouping is out of phase with the meter. But there is also musical support for larger end-accented groups. As discussed earlier, the final downbeat of a strain almost always receives an agogic accent, even in tunes where the measure-level groups are beginning-accented. Cadences and group endings within strains usually fall on downbeats and are clearly marked as endings by their rhythms and/or bass lines. Beginnings of musical groups, in contrast, are much more varied. The scarcity of cadences on weak beats sets this repertoire apart from the contemporary English country dance music. Since both English and French contredanses were known in most of Europe and
distinguished by country of origin, it is possible that end-accented musical groups came to be felt and later heard as distinctly French.

The consistent combination of four- and eight-bar movement groups with four- and eight-bar musical groups mean that the movement characteristics of each measure in the group map onto the musical characteristics of that measure. Table 4.5 shows the correspondences between movement grouping function, musical grouping function, and hyperbeat in the 2-3-4-1 schema. This schema applies to four-measure groups when measures constitute the hyperbeats, and it could be expanded to eight-measure groups simply by treating pairs of measures as the hyperbeats. Alternatively, two different four-bar 2-3-4-1 schemas could develop, one for the first half of an eight-bar group and one for the second half.

Table 4.5. Motion, music, and hyperbeats in the 2-3-4-1 schema.

<table>
<thead>
<tr>
<th>Type of attribute</th>
<th>Hyperbeat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Degree of metrical weight</td>
<td>Unweighted</td>
</tr>
<tr>
<td>Features of motion group</td>
<td>Beginning; setting out toward a goal</td>
</tr>
<tr>
<td>Features of musical group</td>
<td>New idea; initiation</td>
</tr>
</tbody>
</table>
Table 4.6 correlates musical and choreographical group features not with specific hyperbeat numbers, but with relative positions within a grouping unit. Though the final approach and arrival at a goal most often correspond to measures three and four of a four-bar group (hyperbeats four and one in the 2-3-4-1 schema), since their overall function is to conclude they could theoretically correspond to the last two measures of a group of any length. This consideration becomes particularly important when examining how four- and eight-bar norms are subverted, the subject of the next section.

Table 4.6. Musical and choreographical features of positions within a grouping unit.

<table>
<thead>
<tr>
<th>Type of feature</th>
<th>Measure within grouping unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First</td>
</tr>
<tr>
<td>Choreographical</td>
<td>Starting toward a goal</td>
</tr>
<tr>
<td>Musical</td>
<td>New idea</td>
</tr>
</tbody>
</table>

Playing with Schemas

Although musical phrases with lengths other than a power of two are rare, they do occur when needed to accompany dance phrases of unusual lengths. “Les Spectacles” (feuille 34) provides a wonderful example of a four-bar phrase expanded to six bars to accommodate a longer dance figure. Though the instructions simply say to play the reprise twice, this tune would more properly be classified as a rondeau because the first strain reappears at the end of the second strain. It is not an exact repetition, however.
Two additional measures have been inserted between what were the sixth and seventh measures of the first strain. This creates a 4+6 structure at the end of the second strain which precisely aligns with the dance figures it accompanies. Both the first strain of “Les Spectacles” and its expanded version appear in Example 4.7.

**Example 4.7.** “Les Spectacles,” first strain and its expansion.

First strain.

Second and final strain, last ten measures.

In most cases, six-bar figures are paired with a two-bar figure to make a group that can be accompanied by a typical eight-measure strain. The four exceptions, of which “Les Spectacles” is one, require fascinating adjustments to the musical phrases in order to align with the dance figures. The first strain of “La Bonne Année,” (feuille 38) which appears as Example 4.8, is unique in the La Cuisse collection in that it is the only first strain with twelve measures. First strains accompany the dance verses, which had set lengths of eight or sixteen measures. (The diagrams assign measures to the grand rond inconsistently.) Except for the menuet-contredanse (feuille 21), which has a sixteen-bar
first strain, all of the other first strains in the collection are eight measures long. Neumeyer (2015, 144) includes “La Bonne Année” among the 87 dances in the La Cuisse collection whose first strains are periods, but the actual construction of this strain is more complex. A two-bar basic idea is followed by a repetition of that idea that may at first sound like a statement-response presentation phrase of a sentence. The melody would support tonic to dominant harmony in the first two measures, and dominant back to tonic in mm. 3–4. But both the melody and bassline have sequential repetition down a step, and two measures of a somewhat contrasting idea end in a half cadence, calling the sentence designation into question. The reappearance of the first basic idea in mm. 5–6 suggests this is actually a period, confirmed by a variation of the contrasting idea to arrive at a perfect authentic cadence in m. 12.

**Example 4.8.** “La Bonne Année,” feuille 38, first strain.

The first strain of “La Bonne Année” subverts norms in two slightly different ways. The sequential repetition that begins in the second full measure of Example 4.8 could easily be the beginning of a statement-response presentation phrase of a sentence, promising a return from the dominant to the tonic. The subdominant harmony on the downbeat of m. 4 therefore comes as a surprise. The idea that follows, on the other hand, clearly promises a cadence and then delivers it, even though a cadence at this point makes a phrase with a highly unusual length. The overall length of the phrase is surprising, but
in the moment the arrival of the cadence in m. 6 is not as surprising as the subdominant in m. 4.

Setting up an expectation and then failing to fulfill it, as in mm. 3–4 of Example 4.8, is quite rare in the La Cuisse collection, which makes sense in music composed for the practical purpose of coordinating social dancers. Unforecasted deviations from norms can only be reacted to, not prepared for, and on the dance floor the result could be literal disorientation, in contrast to the metaphorical temporal disorientation that could be experienced when simply listening to music. Measure four of an eight-bar unit, particularly when it accompanies a single eight-bar figure, is about the only appropriate place to surprise dancers by averting a cadence, because it could actually help keep momentum going through the entire eight bars. In contrast, mm. 5 and 11 of Example 4.8 clearly have cadential function, giving listeners a bit of advance warning that a cadence is coming even though it is an unusual place for it. These phrases take advantage of the correlation between cadential function and the penultimate measure of a group, rather than specifically the third measure of four.

“Les Boulevarts d’Orléans” (feuille 44) uses repetition to expand a four-bar phrase to six bars, creating an effect similar to what Ito (2013) discusses in a Mozart Menuetto, K. 409, and Beethoven’s “Spring” Sonata, op. 24. In both the Mozart and the Beethoven, a normative four-bar group is followed by a repetition of the third and fourth measures, destabilizing the four-bar hypermetric level. The third strain of “Les Boulevarts,” shown as Example 4.9, begins with a four-bar group, the third and fourth measures of which are immediately repeated. The entire six-bar phrase is then repeated while the dancers repeat a figure with the roles of the heads and sides swapped. Hearing the six-bar phrase as a
variation on the 2-3-4-1 schema, the entire series of hyperbeats would be 2-3-4-1-4-1.

This hearing seems reasonable particularly for those dancers moving along the outside of the center ring—they get four measures to go home and two measures for a rigaudon after they arrive. But there is another possibility that seems much more appropriate for the dancers in the ring, performing a continuous six-bar motion. The eighth notes on the downbeat of the fourth measure severely lessen the sense of arrival, making it sound as if the lead-up to the arrival is being repeated, not the arrival itself. The series of hyperbeats thus produced is 2-3-4-3-4-1.


Example 4.10 compares the structures of three twelve-bar groups, each of which accompanies a different structure of movement group. “Allemande du Devin de Village,” (feuille 88) which uses music from Rousseau’s opera, repeats four measures to expand an eight-bar group to twelve, maintaining the four-bar hypermeter but disrupting the eight-bar level. In a sense, Rousseau has taken a sentence (this phrase opens with a Fonte) and a period and overlapped the sentence’s continuation phrase with the period’s antecedent. The complete 12-bar phrase could be understood as 8+4 or 4+8. This section is during the 20-measure improvised pas de deux of a single couple, so there is no particular lower-level dance structure to conform to.
Example 4.10. Twelve-bar groups with different internal structures.

“Allemande,” feuille 88, fourth strain, m. 9

“Les Talens,” feuille 41, fourth strain

“La Perle,” feuille 36, third strain, m. 9
In contrast, “Les Talens” (feuille 41) generates a twelve-bar phrase simply by tacking two cadences onto an eight-bar sentence that ended in a half cadence. In Caplin’s terms this strain might be called a sentence + cadential. The fractured nature of the last four measures is perfectly suited to the choreography at this point: all dancers arrived home at the half cadence in measure eight and the last four measures of movement serve as filler. During mm. 9–10 dancers “allemande aux quatre coins,” turning with their corner and coming right back to where they started, and in mm. 11–12 dancers simply rigaudon in place. The twelve-bar section from “La Perle” (feuille 36) offers more possibilities for internal divisions than the phrases from the “Allemande” and “Les Talens.” All three phrases in Example 4.10 begin with the Fonte schema, creating a four-bar group at the start. In “La Perle” the Fonte is followed by four two-bar groups, the last two of which are the same and obviously cadential. Assigning each distinct two-bar unit a letter produces the form aabcdd. Grouping the b and c units together produces a 4+4+4 structure, but the corresponding movement phrase is ostensibly structured as 6+6. The first of those six-bar figures is itself structured as 4+2 (dos-à-dos followed by rigaudon), which the music suits perfectly well.

“La Beaudri” (feuille 39) includes a disruption of a movement schema that does not affect the hypermeter but is nevertheless highlighted by the music. The dance refrain begins with three-quarters of a carré or grand square, but instead of completing the square path to return home, everyone moves in the opposite direction, trading places with another dancer. This whole process is repeated in figures III and IV, bringing everyone back to their starting position. In each eight-bar group, measures seven and eight contain the deviation from a typical carré. On the downbeat of measure six, immediately before
the disruption, the music contains a string of 32nd notes, as if to say, “Pay attention! This square doesn’t end in the usual way.”

**Two Analyses**

To show how contredanse experience could shape music listening outside of the dance hall, I would like to briefly discuss the finale of Haydn’s String Quartet op. 76 no. 4. Zbikowski (2008) analyzes this movement as a “sonic analogue” for the bourrée, but while the movement certainly employs the bourrée topic, by the time it was composed the bourrée was no longer familiar to most listeners as a dance. Bourrée music could not serve as a sonic analogue for the movement of the bourrée for the simple reason that most listeners would not have known the bourrée as a set of movements. However, listeners would have been familiar with the movement of the contredanse, and this piece references the contredanse at the same time as it references the bourrée. Because its defining characteristics are hypermetrical clarity and coordinated movement along paths, the contredanse can coexist with many other dances that only define short rhythmic gestures and footwork. As noted above, the gavotte was the baroque dance most often associated with the contredanse, particularly the French contredanse, but others could be incorporated as well. The bourrée can be easily accommodated on account of its duple meter.

The first eight bars of the Haydn movement, shown as Example 4.11, could almost have come directly from the La Cuisse collection. As we have seen, eight-measure parallel periods built of sentential phrases are quite common in the contredanse repertoire. The large-scale form of the movement is also reminiscent of contredanses, particularly the
French variety I have examined in detail (although the movement is missing the half-bar upbeat most characteristic in French contredanses). Reichart describes three levels of rondeau structure found in many French contredanses: “First, that implied by the repetitive nature of the dance with its nine entrées and refrains. ...Second, that which arises when two strains or more of a tune are to be played ‘en rondeau,’ as in the two types above: AABABACA or AABAccdc” (1984, 192; lowercase letters indicate minor-key strains while uppercase indicate major). Reichart’s third level of rondeau form is simply the eight-measure period, with its repeating basic idea and varying contrasting ideas.

Example 4.11. Haydn, Op. 76 no. 4, iv, mm. 1–8.

The primary movement of the contredanse that music could evoke is simply a four- or eight-bar directed motion along a path—precisely the kind of dynamic shape that Zbikowski acknowledges is unusual in a bourrée (2008, 298). Music for the bourrée could afford to be subtle when shaping larger phrases—the dancers didn’t particularly need clear indications of phrase beginnings and endings. Contredanse music, on the other hand, was responsible for coordinating eight or more dancers in space and time. The easiest way to do that and avoid collisions was for the music to be extremely
predictable—a clear build-up to a cadence helps dancers arrive at their destinations on
time.

Contredanse figures overwhelmingly require four measures of music and their music contains primarily four-measure phrases, meaning that movement and musical grouping functions become associated with hyperbeats 1–4 of 4. But there is a more general association of beginning to move with the first measure of a group, arriving at a goal location in the last measure of a group, and continuing a movement during internal measures of a group, however many there are. This allows six-bar musical phrases and other unusual lengths to remain clear as long as they preserve the clearly cadential ideas for the end. A six-bar figure and musical phrase among four-bar phrases would likely be experienced simply as a stretching or a slightly longer motion rather than a hypermetrical disruption, if dancers notice the difference at all. Haydn’s six-bar phrases mostly seem to take advantage of this process—while there are some sections of the op. 76 no. 4 finale that could paint a picture of dancers losing their place, as Zbikowski suggests, most deviations from the four-bar hypermeter are achieved by smoothly extending the material before the cadence.

To conclude I would like to present another example of how contredanse experience would have shaped reception of a work not intended for actual dancing. Ratner calls the theme of Mozart’s String Quintet in G minor, K. 516, finale, a “Ländler with a typical off-beat waltz accompaniment” (1980, 253), but several historical as well as musical factors support the identification of this theme as a contredanse. As Neumeyer (2006) points out, finales of sonata-form works in the late eighteenth century, including many of Mozart’s piano sonatas, were often contredanses. Reichart similarly associates the
classical rondo specifically with French contredanses, because of the multiple levels of rondeau form discussed above. The slow, minuet-like introduction to the finale of K. 516 is not out of place—the sequence minuet-contredanse was common in ballrooms at the time (Neumeyer 2006, 4) and we have even seen La Cuisse’s suggestion to alternate dances 20 and 21 in his collection, one using minuet steps with minuet music and the other using “contredanse” steps. Several of Mozart’s own contredanses intended for dancing begin with a minuet strain, or have a brief minuet section in the middle. Mozart’s contredanses include examples of both French barring, with a half-bar upbeat, and the shorter or non-existent upbeats typical of English country dances. He knew of the connection between French contredanses and the gavotte—many of his dances with the half-bar upbeat are labelled “gavotte,” both those in $\frac{3}{4}$ and alla breve. He even explicitly labelled a contredanse in a chamber work, the finale of the wind quintet, K. 213.

Musically, the theme of K. 516’s finale bears a close resemblance to the first strains of two dances in the La Cuisse collection. Mozart’s theme and the two strains from La Cuisse are shown in Example 4.12 (the strain from “L’Espagnollette” has been transposed from B-flat for easier comparison). All three themes are eight-bar periods in $\frac{6}{8}$ with a half-bar upbeat, but these are typical genre characteristics. All three have phrases with a similar melodic contour: a rise through the tonic triad, then a descending scalar passage to a cadence. Mirka (2009, 88) points to the placement of the octave jump in Mozart’s bassline as evidence that the notated barlines do not reflect the “real” meter, but “La Nouvelle Carelle” has an identically placed octave leap in its first phrase. All this is not to say that Mozart literally stole from the La Cuisse dances, merely that Mozart’s theme uses conventions common in French contredanses of the time. The similarity of the last two
measures of each eight-bar segment in particular supports Caplin’s claim that conventional formulas, rather than ideas specific to an individual work, are often used for cadential closure (1998, 37).

**Example 4.12.** A Mozart theme in comparison to two themes from La Cuisse.

Recognizing Mozart’s theme as a French contredanse tune challenges Ratner’s and Mirka’s assertions that the theme is heard as beginning on a downbeat. Mirka lists several features that certainly establish the grouping structure as offset from the notated meter, but this does not mean that the grouping and meter are in phase. Contemporary listeners had experience not only listening to in-phase and out-of-phase grouping, but also dancing in alignment with both kinds of musical groups. Mozart’s theme could activate contredanse motor imagery that treats the musical groups as beginning-accented or end-accented. Listeners could even be aware of both possibilities, particularly as later sections of the movement fall more clearly on one or the other side of this question. Appreciation
for Mozart’s play with the relationship between grouping and meter would not require
listeners to know the “rule” Mirka discusses, that cadences in simple meters should fall on
downbeats. Calling on known French contredanse schemas would not preclude Mozart
from also making fun of incompetent composers and performers. Rather, it adds layers to
the joke—listeners could scoff at the French or English way of dancing, or the confusion
of people who don’t know the difference.
CONCLUSION

In this thesis I have argued that eighteenth-century contredanses made important contributions to contemporary experience of meter and hypermeter. I show that in general, the experiences we have moving to music shape our later music comprehension, particularly comprehension of meter. Contredanses were a significant part of eighteenth-century social life, so the movement experience involved would have played a role in dancers’ music listening. In chapters three and four I examine a collection of French contredanses to develop an idea of what contredanse movement experience was like and how movement and space might have been associated with features of the accompanying music. Contredanses provided a literal basis for many common musical metaphors, such as key areas as spatial locations, phrases as directed motion, and orientation to meter and form as spatial orientation.

This research points to several avenues for further study. While the La Cuisse collection is large and representative, examining other collections of French contredanses could provide further support for the alignment of meter and choreography I have discussed, or suggest other possible patterns. Contrasts between French and English contredanses, in music and choreography as well as how they align, would also be interesting to investigate. This work also suggests that it would be instructive to explore how movement can affect modern listeners’ resolution of metric ambiguity and experience of meter in general. Phillips-Silver and Trainor (2005; 2007) showed that movement experiences can affect whether an ambiguous rhythm is perceived in duple or triple meter, but this is only one kind of metric ambiguity. Borrowing Krebs’ (1987; 1999)
distinction between types of metric dissonance, Phillips-Silver and Trainor investigated how movement resolves grouping ambiguity, while Mozart’s K. 516 finale theme employs displacement ambiguity. The role of musical performers in shaping listeners’ perceptions in this context would also be interesting.

I hope to have shown that dance not only formed an integral part of eighteenth-century musical life, but that dance can play a significant role in the experience of meter, both historically and in the present. Continuing to explore the role of the body and movement in musical comprehension can only improve our understanding of meter and music theory in general.
Les Chaines

Chaines involve two dancers taking right hands, passing by each other, then each taking left hands with another dancer. This can be repeated, alternating right and left hands. When all eight dancers perform this in a ring, it is called a grande chaine; the men travel counterclockwise around the ring while the women travel clockwise (but in the last figure of “La Nouvelle Carelle,” feuille 59, the men’s and women’s directions are reversed and it’s still called a grande chaine). Men only take hands with women and women only with men. In a petite chaine vis-à-vis, two women across from each other start the chaine by taking right hands, then give their left hand to the man they meet across the square and turn until they face back across the square. The maneuver is then repeated to bring the women back to their starting position. A petite chaine sur les côtés is the same pattern of interaction but with different people: the head ladies take right hands with the lady to their right. Petite chaines appear in other formations as well, such as a straight line of four dancers, a ring of four dancers, or a sort of zigzag for which the diagram is very helpful.

Les Carrés

“Le Carré de Mahoni” is known in modern square dancing as a Grand Square. The square on which all eight dancers are arranged is divided into quarters and each individual moves along the perimeter of one of the smaller squares thus generated. The heads start by moving forward until they meet in the center, then turning away from their partner (or facing their partner and moving backwards) and continuing until they have
walked a square path and arrived back at their starting point. At the same time, the sides leave their partner moving to an outer corner, then likewise continue moving along their small square.

**Les Courses**

A course involves moving around the outside of the dance square, usually pausing at each side. A *demi course* or a *quart de course* is quite common, as are interruptions for turns at each stop along the way. Courses can be done as couples or by four individuals moving alone.

**Les Allemandes**

An allemande is usually a turn, done by two dancers holding hands right hand to right hand and left hand to left and/or facing opposite directions as they turn.

**Les Ronds**

Can be a movement or just a formation. Circles of two, four, or all eight dancers are possible. As a movement a rond involves turning a circle clockwise or counterclockwise.

**Les Moulinets**

Like ronds, a moulinet can be a movement or simply a formation. Moulinets usually involve four dancers standing in a circle, all putting the same hand into the center, and facing around the circle. In English this figure is often termed a “star.” Dancers could then walk forward to turn the moulinet.
**Les Poussettes**

Poussettes are done by a couple facing each other and holding hands. They move so that one dancer pushes the other, then usually go the opposite direction with the other dancer pushing. This is often done around another couple doing the same thing, so that each couple will not simply stop and reverse direction, but move to the side in order to end where the other couple began.

**Les Chassés**

A chassé is simply a movement sideways. It is usually performed by at least two dancers simultaneously, one moving right and the other left. If the dancers move away from each other, it is a chassé ouvert. If they trade places, it is a chassé croisé. If they trade places and trade back with each passing in front once, it is a chassé dessus et dessous. A chassé double involves two couples moving as units to trade places.
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