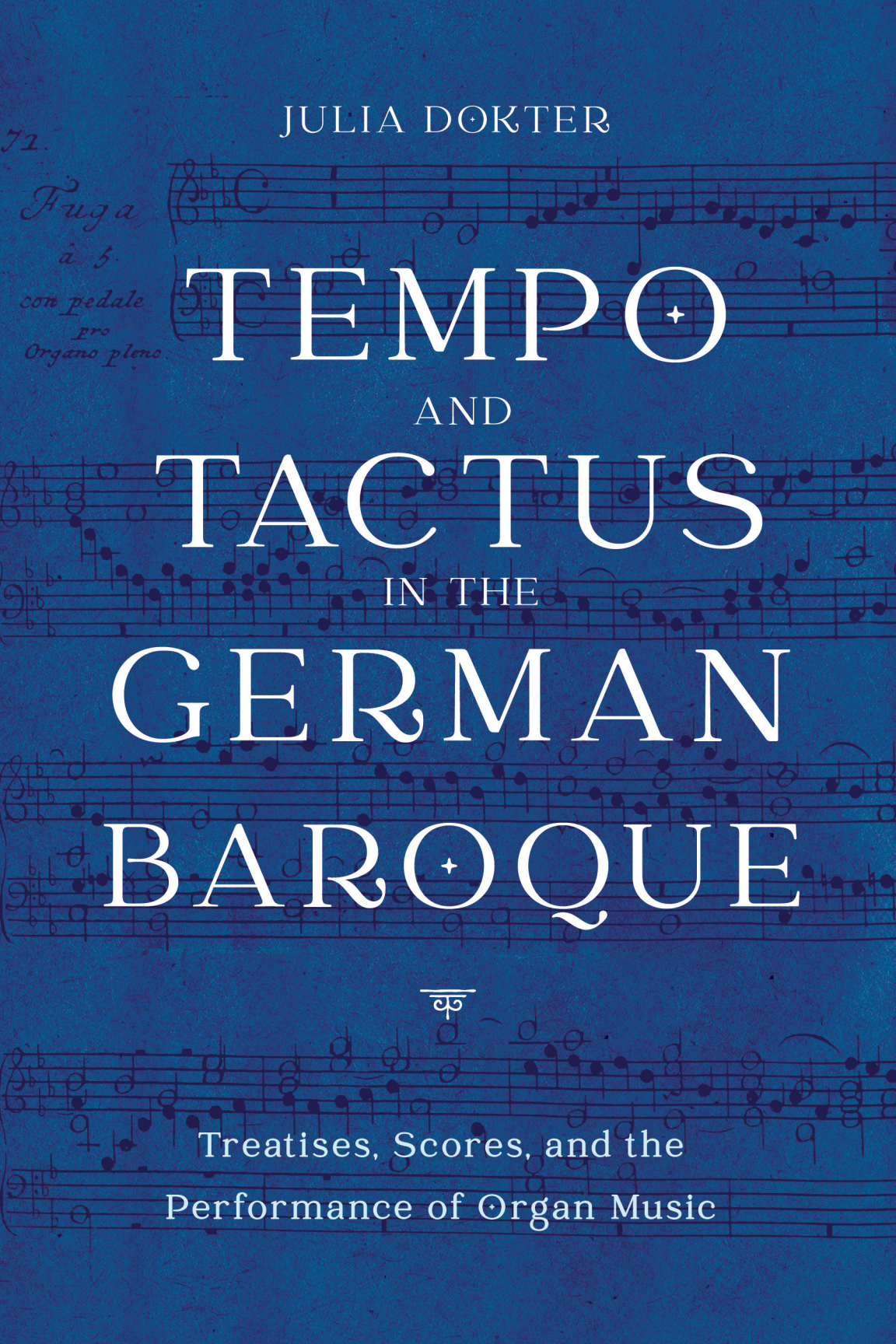
JULIA DOKTER
TEMPO
AND
TACTUS
IN THE
GERMAN
BAROQUE
Treatises, Scores, and the
Performance of Organ Music

# Tempo and Tactus in the German Baroque

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# Tempo and Tactus in the German Baroque

## Treatises, Scores, and the Performance of Organ Music

Julia Dokter

University of Rochester Press

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In memoriam
Linda Dokter

# Contents

**Part 3. Synthesis**

# Acknowledgments

From my very first tentative investigations into this topic about ten years ago to its present form, there have been numerous people that have helped and encouraged me and who have catalyzed certain developments and ideas along the way.

Of singular importance is my husband, Jens Korndörfer, who not only patiently supported me over the years of writing this book, but also served as a sounding board for ideas (many times!), and helped me refine my German and French source translations. Without him, this book truly would not be.

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# Notes to the Reader

## Definitions of Terms

This study employs a number of terms that need highlighting here for clarity. They are explained more in detail in the introduction and in other chapters of this book.

1. Surface/Perceived Tempo vs. Tactus Tempo. Surface or perceived speed always refers to the dominating note values of a composition. For example, in [], the surface speed runs along in sixteenth notes. The tactus speed, however, refers to the underlying beat structure, which in the above example, is the three quarter notes. However, in reference to actual German treatise theory wherein "Tact" = measure (see especially chapters 1–3), I often move back to the duration of the measure as a whole when talking about tactus rate (especially for calculating tempo shifts). For , this would be the dotted half note.

   It is extremely important to always keep the concepts of surface and tactus speed separated. For example, while I discuss *stylus phantasticus* as having a slower tactus rate than its surrounding sections, its perceived speed is still quite vigorous and fast, because this texture almost always uses faster note values. If both tactus and perceived speed were fast, these sections would be unmusical if not unplayably fast. As another example: the large *allabreve* [] has a fast tactus rate, but slow perceived speed, because it uses slower note values (half notes, quarters, etc.). If both tactus and perceived speed for this meter were slow, the piece would sound terribly lugubrious and lethargic.
2. Tempo Interconnectivity vs. *Tempo Giusto*. These two terms describe two different ways to use time signatures and note values in the baroque era.
   a. Tempo interconnectivity functioned mainly during the seventeenth century. Its most important characteristic is that the speed

of any given section of music was determined by the speed of the previous section. These transitions depended on the interplay between time signatures and note values.

b. *Tempo giusto* seems to have been emphasized more and more during the eighteenth century, when compositions were not generally multi-sectional (i.e., individual movements did not generally have changes of meter). Here, the tempo of any given work was determined by the time signature and its note values in a sort of vacuum, not necessarily connected to the tempo of the previous movement. Each time-signature + note-value pairing had its own "proper" tempo that was learned through experience.

c. While both systems can be found in both centuries (and tempo-interconnectivity informed *tempo giusto* to a certain extent), musicians in the seventeenth century seemed to emphasize tempo interconnectivity, and those in the eighteenth century, *tempo giusto*.

3. Terraced Tempo System. This term refers to the grid of interrelationships between time signatures, as shown in figure 3.4 (see chapter 3). Crucially, this figure illustrates that each duple meter has its own collection of triple and compound meters to which it is directly proportional, i.e., where the measures of the duple meter have the same time duration as the measures of each of its directly proportional triple and compound meters. Each group or "terrace" of proportional meters is faster or slower than another group or "terrace." When moving through a composition with various time signatures, the performer moves from once tactus rate to another, or stays strictly proportional.

4. Proportional vs. non-proportional.

a. The term "proportional" is used here to mean when the measure of one type of meter lasts the same length of time as the measure in the new meter. In this case, there is no tactus tempo shift. This term also encompasses diminutions and augmentations in which there is no audible tempo shift, only a written one.

b. When I use the term "non-proportional," I refer to those changes of meter which cause an audible tempo shift. This is often indicated in this study by the ratio 1.5:1 (which is technically a proportion, but not the kind used in the Renaissance).

5. *Stylus Phantasticus*. The definition of *stylus phantasticus* used here is for a very specific texture. Recognizing that Johann Mattheson and Athanasius Kircher spoke about this style in broader terms, I use it only for textures in organ compositions that are very free and improvisatory in gesture. These often exhibit an elastic pulse, often present an extroverted nature, and most importantly, often change note values significantly from the sections surrounding them (i.e., they have faster note values). A classic incarnation of *stylus phantasticus* as used in this study would be the opening and closing sections of (almost) any given praeludium by Buxtehude, for example. The exact description of *stylus phantasticus* as used in this study may be found in chapter 9.
6. Segmented or Sectional Music: These two descriptors serve as umbrella terms that encompass a wide variety of musical styles that change texture in some way or other during the late sixteenth century, into the seventeenth and even eighteenth centuries. This includes the alternation of vocal and instrument choirs in polychoral music and alternatim, and also the shifts in texture engendered by the concerto style used by Michael Praetorius, Heinrich Schütz, and others. These textural shifts seemed to create space in which tempo shifts could be layered (see the introduction for a more comprehensive coverage of this topic).

## Notes to Musical Example Transcriptions

All examples in this study are transcribed to appear as close to the original as possible, including:

1. Time signature, note values, measure length, and even lack of bar lines;
2. Key signatures;
3. Note stem direction, and beam groupings.

In addition,

1. Notes are kept in their original position, even if incorrect in the source cited.

2. Even when the note values do not add up to the correct number of beats per measure, they are kept as in the original.
3. When time signatures must be inferred because they are not given in the source at any point, they are given in square brackets.
4. Bar line appearance is kept as in the original (for example, in many scores in staff notation, the bar lines only penetrate the five lines of each staff making up the system, not the entire system).
5. Music without bar lines, such as vocal part books and tablature, are left as such. However, sometimes in these transcriptions bar lines are indeed given, but shown between the staves rather than penetrating the entire system. These bar lines are my interpretation of the metric/proportional characteristics of the music; their placement between the staves indicates that they are not present in the original.

There are some exceptions to these general principles as concessions to modern notation and standards. For example:

1. Clefs:
   a. I have changed all clefs to treble and bass, while indicating the original clef in the incipit.
   b. Changing clefs sometimes means that the original stem direction must be changed as well. Any changes to stem direction pass unmentioned.
   c. Any subsequent clef changes within the original source pass unmentioned.
   d. Sometimes keyboard music contains more than one clef per stave. In Weckman's music in KN 147, all clefs in the incipit and in the transcription are original. This means that the reader should understand the two clefs in the incipit plus the two clefs in the transcription—i.e., four clefs in total—as in the original source.
2. Weckman's keyboard music was written on staves with more than five lines. I have transcribed them on 5-line staves without comment.
3. Often original sources show more accidentals in the key signature than are used today, doubling, for example, the B♭, F♯, and C♯. These are also shown in the incipit, but not in the transcription.
4. Older forms of accidentals pertaining to both staff notation and tablature (such as B♯ and D♯ respectively) are normalized (e.g., to B♮ and E♭). In figured bass symbols, however, these are left as in the original.

5. The typing of certain tablature examples in modern computer fonts sometimes shows letterforms that are slightly different than the original source. This is because the three different computer fonts used for these tablature transcriptions cannot encompass all the idiosyncrasies of each copyist.

Any measure-number indications in the example titles are based on the original source, not on a modern edition. For those sources that do not contain bar lines, such as tablature and part books, I have included a description of the placement of the excerpt in question (e.g. "second fugue").

## Notes to URL Appendix

Throughout this book, I will be making reference to a URL appendix. This appendix mainly contains the transcriptions of key sources and their translations into English. It may be found at http://www.juliadokter.com/baroque-tempo.html.

# Introduction

## General Structure of Study

The choice of tempo is one of the most personal decisions a performer must make in his or her interpretation of any given piece of music. The tempo set can, quite simply, make an interpretation in the eyes of some, or break it in the eyes of others. How do musicians chose appropriate tempos for their performances? Is it merely intuition? Experience? What cues do they draw on, either deliberately or innately, that inform their decisions? How do composers transmit the tempos they hear in their minds or in their performances on paper to guide others?

More specifically, how should a performer go about determining a best (or even just plausibly appropriate) tempo for music from a specific historical time period? As is well known, a number of composers in the last two hundred years or so have indicated the tempo of their works more or less precisely,[1] as the advent of the metronome around the turn of the nineteenth century allowed for a more reliable and consistent communication of tempo, such as had never before been experienced.[2] But how did Baroque musicians approximately during the century and a half before the introduction of the metronome deal with this issue? This is the line of inquiry that forms the subject of this study.

This question is certainly very difficult to answer because of its rather extreme level of complexity. In order to present adequate solutions to problems and questions, the scope of this study needs to be quite severely limited. For these reasons I have applied the following four research boundaries:

1. See, for example, Béla Bartók's precise metronome markings evident across his oeuvre.
2. Stokes, 23–30; Jerold 2009, 14–27; Angermüller, 134–40.

1. Relative tempo, not absolute tempo;
2. The geographic area where the German language was primarily spoken, and especially in terms of the score analyses of parts 2 and 3, mainly the northern and central parts of (modern-day) Germany;
3. Organ/keyboard literature, but excluding its subcategory of dance music;
4. The time period approximately between 1650 and 1750 for the music analyzed in parts 2 and 3. The time period of the treatises consulted, however, extends from the Renaissance to the end of the eighteenth century.

The rationale behind these four boundaries will be the main subject of this introduction. They will be approached after the brief overview of tempo terminology given further below.

The advantage of setting these boundaries is that they have resulted in uncovering notation traditions and conventions not discussed (or at least not clearly discussed) in the treatises, such as (1) the various tempo significations of the small *allabreve* meter [𝅵𝅗𝅥] (see especially chapters 8 and 10); (2) traditions of notation reserved for specific instrumentation (see later in this introduction, and chapter 12); (3) situations which remove certain sections of a composition from the proportional system (see chapter 9); and (4) the usage of tempo words in very precise situations (see chapters 9, 10, and 12). These limitations also help to delineate "national" notational styles,[3] showing the distinctiveness of German, French, and Italian metric theory, and their implementation. In addition, they serve the eminently practical purpose of maintaining this present work within a reasonable length: merely adequately covering the idiosyncrasies of Italian, French, and German metric theory and how the three systems influenced each other would result in a multivolume study.

There are, however, a number of caveats to the above list: for example, part 1 of this study is not limited in any way to keyboard/organ music, as the treatises discussed here deal with all types of instrumentation and ensembles; chapter 4 will depart from boundary 2 in a discussion of certain French notations; chapters 6 and 11 include discussions of dance music; chapters 8, 11,

3. I use the word "national" here very loosely, as political boundaries in the Baroque era were not the same as they are now. Modern Germany, for example, was not a "nation," but a collection of many independent states, especially after the Thirty Years' War.

and 12 use vocal and other instrumental genres to illustrate certain metric practices; and chapters 8 and 12 deal with some keyboard music composed generally before than 1650.[4]

Finally, it is my current understanding that notational variants were more strongly present in the seventeenth century than in the eighteenth. The early seventeenth century was a time in which musicians (officially) transitioned from the immutable tactus rate used in the Renaissance to one that could shift constantly (see chapters 1 and 2). This change in metric theory prompted a period of intense experimentation. While these experiments created many different streams of metric notation in the seventeenth century, these differences generally evened out in the following century, although there were still various practices occurring simultaneously (see chapters 10, 11, and 12).

In addition to the above qualifiers or boundaries of this study, we also need to recognize the three sources of data that can be used to inform such an inquiry: (1) treatises or other such verbal explanations given at the time; (2) score sources copied during the seventeenth and eighteenth centuries; (3) our own musical intuition and experience. These sources are broadly represented in the three sections of this study:

1. Part 1. The assembly and analysis of theoretical data transmitted in the treatise writings of the time for the purpose of establishing the basic principles of Baroque tempo;
2. Part 2. The analysis of Baroque scores, not only to understand how treatise principles operated in performance, but also to approach further practices not explained in the treatises.
3. Part 3. The synthesis of data gleaned from parts 1 and 2. Here, the results of the studies in parts 1 and 2 will be applied to selected works to demonstrate how all the principles operate in a performance situation (chapter 13). This synthesis includes the use of personal interpretation and musical experience, as often the degree of tempo change is not "set in stone," as it were. Part 3 also includes a synthesis of data detailing the story of the demise of the proportional system, and a list of Johann Sebastian Bach's metric practices culled from the analyses of part 2 (chapter 14).

4. See the discussions of Heinrich Scheidemann's intabulations in these chapters. Klaus Beckmann dates these works from 1634 to 1656. Beckmann, 181.

## Introduction to Tempo Cues

Prior to ca. 1800, the communication of speed was not an easy task. While there were some references to the heart rate or some other such regular pulse,[5] the question remained as to how to best indicate tempo and tempo transitions. In the Baroque period (ca. 1600–1750), as will be amply demonstrated throughout this study, the solution to this problem was through a combination of notation conventions. The main tempo cues—i.e., the primary subject matter of this study—were:

1. Mensural signs and time signatures,
2. Note values, and
3. Tempo words, such as *adagio* and *allegro*.

Other cues that the performer/composer had to be aware of were:

1. Harmonic rhythm (the greater the number of harmonic changes per measure, the slower the tempo—see chapter 13),
2. Suspensions (the greater the number of suspensions, the slower the tempo—see chapter 12)
3. Chromaticism (the greater the chromaticism, the slower the tempo—see chapter 13),
4. Dotted rhythms (the more highly dotted the texture, the slower the tempo—see chapter 11), and
5. Complexity of musical gesture (the more complex the ideas and their interweaving, the slower the tempo—see chapter 12).

These musical parameters worked together to communicate subtle gradations of tempo, either for tempo changes within a composition, or for an overall indication of speed and character.

Especially during (roughly) the seventeenth century, once the above tempo cues established the initial speed of a work, all subsequent tempo changes would be based on the speed of the previous section (see parts 2 and 3 of this study). This worked well in pieces that included many texture and section changes, such as in music by Matthias Weckman (ca. 1616–74), Dieterich Buxtehude (ca. 1637–1707), and others. This system of related and interlocking tempos continued into the eighteenth century, where it slowly gave

5. Grant, 54–59.

way to the idea of a "correct tempo" for each combination of time signature and commonly used note value(s). This new tempo system was referred to as *tempo giusto* (see chapter 3).

Despite the rules set forth either via interlocking tempos or *tempo giusto*, it seems that musicians still struggled to learn the system, and to divine the correct meaning of the codified tempo indications in use at that time. At the end of the Baroque period, Lorenz Christoph Mizler (1711–78) identified this problem via a quote from the French music theorist Jean Rousseau (1644–99).[6] For him (and Rousseau), it was really only the composer who knew the true tempo of a given work, because the same time signature could at times be slow, and at other times fast. In fact, he asserted that it was impossible—"beyond all words"—to communicate the true nature of the tactus, and therefore it could only be made known by talent and experience.[7]

## The Range of This Study

The remaining portion of this introduction is devoted to elaborating on the reasons the four subject boundaries were chosen.

### Boundary No. 1: Relative Tempo, Not Absolute Tempo

Being able to pinpoint exactly how fast a Baroque performer would have played a given work is certainly a tantalizing subject of inquiry, and one pursued by some scholars, including Robert Marshall and Jan van Biezen.[8] In my own experience in performing organ music, however, the tempo chosen for a given work can depend on many circumstances, such as the acoustics of the performance venue (which can range from almost no reverberance—allowing a faster performance—to more than eight seconds, necessitating a slower interpretation to avoid a cacophonous mixture of notes); the occasion of the performance (i.e., performance during the liturgy or a concert); the mood of the artist on any given day; and the instrument itself (for example,

6. Not the more famous Jean-Jacques Rousseau (1712–78); in this study, it is always Jean Rousseau that is referenced, not Jean-Jacques.
7. Mizler MB, vol. 2, 238–40. For full quote and translation, see URL appendix 0.1.
8. Marshall 2008; Van Biezen. For studies related to the pendulum or metronome and absolute speed, see, for example, Rubin.

some mechanical action organs can be extremely light, allowing for quick execution; others can be much heavier making faster interpretations much more difficult). In my opinion, trying to ascertain the absolute tempo Bach would have played one of his organ works is almost impossible as it requires a study of (1) the instruments he would have played it on (in their condition at that time); (2) the rooms these instruments were in; (3) documentation of precise tempos commonly performed by Bach or at least by his circle of colleagues; (4) Bach's circumstances, mood, and temperament at the time of playing, and so on. While some of the data for such a study can be gathered to somewhat reasonable accuracy (e.g., room acoustics and Bach's instruments), the other necessary data are very difficult or impossible to attain.

Further, associating a time signature and note value combination with a specific speed can be very misleading as, even in the eighteenth century, the possibility existed that one set of tempo cues could determine the speed of the subsequent set. Thus, it is distinctly possible that tempos were arrived at that did not fit the time signatures as comfortably as they should have—at least theoretically (see chapter 11). In my opinion, then, the search for absolute tempo is one absolutely fraught with difficulties, and a topic of inquiry that deserves its own dedicated and extensive study.

With this in mind, I have turned to another set of data: relative speed. The main line of inquiry imposed here is how a musician would have understood the speed of one time signature and note value combination (and tempo word, occasionally) as related to another set. For example, if a theorist described a certain time signature as "faster," my only interest is in answering "faster than what?" and "how much faster?" I will not be addressing what "fast" or "slow" may have meant to a Baroque musician in absolute speeds translatable to modern metronome markings.

In the treatises examined in this study—mainly music primers—the question of absolute speed and how to measure it almost never arises. One of the rare instances where I encountered such a discussion was in Michael Praetorius's Syntagma Musicum III (1619), where he gave the chart reproduced in figure I.1.[9] Praetorius provided this list so that the performer could approximate how many breves should ideally go into a certain period of time. This, however, is irrespective of mensural sign, as Margaret Boudreaux explains:

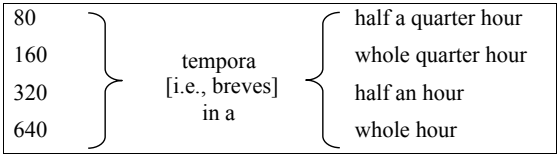
9. Praetorius 1619, 88. See URL appendix 0.2 for original.

> The figures in the table correspond to the M.M. half note = 43. If one examines the works in the *Polyhymnia caduceatrix*, one finds that M.P.C's [i.e., Michael Praetorius Creuzburgensis's] indications of the numbers of *tempora* contained in each work disregard the changes in mensuration which affect the durational value of the breve (*integer valor* = *tempus*). The numbers thus represent no exact time, but are the result of a cursory counting of breves—irrespective of signature—which adjusted to a "moderate pace" provide the approximate length of the piece.[10]

In other words, Praetorius's absolute tempo indications are not numbers that can be plotted on a metronome. We cannot say that Praetorius advocated mm: 𝅗𝅥 = 43, since he changed time signatures throughout his pieces: a half note in [𝄵] would not have the same speed as a half note in [𝅜], as will become quite clear throughout this study. Instead, the numbers given by Praetorius are an average over an entire work or length of time. Much later in the Baroque period, Lorenz Mizler (1711–78) would give an account of how composers would sometimes estimate the time it would take to play a certain number of measures.[11]

What can be said about absolute tempo, however, is that it seems that the speed of time signatures and note values slowed as the Baroque era progressed: for example, while some time signatures in the early seventeenth century were considered fast, in the later Baroque period these same signatures were considered slow, and other signatures were introduced in their stead to indicate fast tempos (see chapter 6). This is a theme that will recur intermittently throughout this study.

Figure I.1. M. Praetorius's chart showing absolute speed.




10. Praetorius 2006, 100. Jeffrey Powell cites Margaret Boudreaux, "Michael Praetorius's *Polyhymnia Caduceatrix et Panegyrica*," 332n1.
11. Mizler MB, vol. 4, part 1, 108–9. URL appendix 11.2.

Especially in parts 2 and 3, metronome markings based on time signatures, note values, tempo words, musical gestures, etc., are given to illustrate tempo principles. These markings, however, are in no way whatsoever to be understood as indicating the precise absolute speed a Baroque performer would have played a piece, or section of a piece: they are only given for illustrative purposes, i.e., to show more clearly how one would transition from one set of tempo cues to another.

## Boundary No. 2: German-Speaking Areas

I have limited this study mainly to the geographical area in which German was spoken. Especially for the scores analyzed in parts 2 and 3, this region is further restricted to the northern and central parts of modern-day Germany.

Some of the most commonly performed early organ repertoire today is that originating from this area in Europe, including works by composers such as Matthias Weckman, Nicolaus Bruhns (1665–97), Dieterich Buxtehude, Georg Böhm (1661–1733), and Johann Sebastian Bach. Historically informed insights into this repertoire, then, are always highly useful to practicing musicians.

But there is a further, more compelling reason for this limitation. While Baroque metric theory across Europe was built on a fairly common understanding of the Renaissance proportional system, thanks to the widespread dissemination of treatises such as Gioseffo Zarlino's *Le istitutioni harmoniche* (1558) and Heinrich Glarean's *Dodecachordon* (1547), Baroque musicians essentially forced the old Renaissance system to adapt to the exigencies of new compositional styles. These changes, most importantly, were very regional, according to the musical style in vogue in a given place. As a result, the notational style in Rome was not only different from that practiced in Wolfenbüttel, but also different from that used in Paris (for example).[12] The

12. This is not to say, of course, that Renaissance style was uniform. This would simply be naïve, and frankly incorrect. However, especially in terms of mensural theory and the notation of time, musicians all across Europe upheld a similar or identical mensural theory and quoted from commonly studied books. For example, Franchinus Gaffurius (1451–1522) was born and lived in "Italy" (Grove-Gaffurius); Heinrich Glarean (1488–1563), who copied some of Gaffurius's writings on mensural notation approximately fifty years later (see chap. 2), was a Swiss musician who studied in Cologne (Grove-Glarean); Michael Praetorius (1571–1621), working in Wolfenbüttel, quoted Glarean in his Syntagma Musicum III (see chap. 1); Sebald Heyden (1499–1561), who

geographic limitations I have imposed, therefore, serve to avoid confusing different "national" styles of music and the notational conventions generated by them.

*Foreign Musical Influence in German-Speaking Areas*

One might argue that it is impossible or at least very difficult to impose linguistic or geographical boundaries on a cultural milieu that favored the intermixing of "national" styles. Certainly, German courts attracted foreign musicians, both French and Italian, and these musicians would have exerted considerable influence on the local musical community. German courts—such the one in Dresden—were known for their importation of foreign musicians for their opera productions,[13] and these musicians were highly valued. Julie Anne Sadie reports that the salaries given to Italian musicians in the Dresden court far outstripped those of the local Germans in certain cases by a factor of more than three to one.[14] This assuredly caused jealousy in the locals and the intense desire to imitate the Italians. For example, Friedrich Erhardt Niedt (1717) sarcastically reported that the German musicians slavishly looked for what was new in Italian music and had to immediately imitate it, whether or not it actually sounded good.[15] Foreign influences were also felt (and desired) outside the court. For example, Matthias Weckman, organist at St. Jacobi in Hamburg, founded a *collegium musicum* in 1660, which performed music from all over Europe.[16]

Italian influence on German music can be seen, above all, in the ritornello form and the concerto.[17] We know that Bach was very much intrigued with these compositional procedures: not only did he use ritornello form pervasively in his own music, he also transcribed a number of Antonio Vivaldi's concertos for keyboard (for example, the Concerto in A Minor, BWV 593 in

espoused typical Renaissance mensural theories, was from Nürnberg (Grove-Heyden); Gioseffo Zarlino (ca. 1517–90), was an Italian (Venice) musician and theorist, whose *Le istitutioni harmoniche* (1558) was translated, adapted, and borrowed from by musicians across Europe—including by a number of musicians from France (Grove-Zarlino) and by the Dutch organist Jan Pieterszoon Sweelinck (Grapenthin, 171–96).

13. Buelow 2004, 472–75.
14. Sadie, 151.
15. Niedt, part 3 (1717), 37.
16. Sadie, 149–58.
17. Yearsley 2011, 53–69.

P 400b),[18] and wrote the *Concerto nach Italienischem Gusto* (Clavier Übung II) according to the Italian ritornello and concerto principles.

French musicians and their distinctive musical style also exerted significant influence. Numerous examples of this can be exhibited, but for this discussion, six representative points of data should suffice:

1. The employment of French musicians in German establishments;[19]
2. Bach's planned musical combat with Louis Marchand (1669–1732) at the electoral court in Dresden (which was allegedly aborted by the French musician);[20]
3. Bach's copy (in his own hand) of the organ and keyboard works by Nicolas de Grigny (1672–1703), Jean-Henri d'Anglebert (1629–91), and Charles Dieupart (1667–1740);[21]
4. The significant amount of French Baroque keyboard music included in P 801, copied by German organists and keyboardists;
5. Bach's list of *agréments* in the *Clavier-Büchlein vor Wilhelm Friedemann Bach*, which were modeled after Jean-Henri d'Anglebert's list in his *Pièces de Clavecin*;[22]
6. The use of the French overture style with its dotted rhythms by German musicians. Examples of this can be found in the first movement of Bach's cantata *Nun komm der Heiden Heiland*, BWV 61,[23] and in his *Overture nach Französischer Art*, BWV 831.[24]

*Evidence of Distinct National Styles*

In the midst of all these international influences, can we really distill a German style? Since German musicians and patrons were enamored of outside influences and assimilated a large part of these musical languages into their own, is it possible that German composition and performance styles were no longer distinguishable from those of their foreign counterparts?

18. References to Baroque music manuscripts and publications (via library sigla or name) within the text of this entire study refer directly to the bibliography, unless otherwise specified.
19. Sadie, 151.
20. Bach Dok III, no. 666.
21. Hs 1538.
22. Clavier-Büchlein W. F. Bach; D'Anglebert. See also Stauffer 1993.
23. P 45.
24. Clavier Übung II.

Certainly not. There are numerous ways in which a German musical style can be distinguished—from the primarily German development of a systematic musical rhetoric[25] to the German boasts of being better at composition than their Italian peers[26] to the judgment expressed by Johann Mattheson that the French sense of ornamentation was excessive.[27]

More specific to the repertoire of this study, we can also say that organ building was also very different from "country" to "country." For example:

1. The mixtures of the German Baroque organs repeated less than the French in order to better allow for clarity of counterpoint—a discipline in which German musicians excelled. The French mixtures, however, allowed for the fuller expression of harmony in the more homorhythmic *plein jeu* pieces (i.e., compositions using mixtures). These works, typically contained only a few—and brief—imitative sections.
2. The distinct strong French reed stops (*trompettes*, *clairons*, *cromornes*, etc.) had no parallel in Germany.
3. While both Italian and German composers wrote sectional music, the organs built for this repertoire were strikingly different. For example, the North German organ, with its multiple manuals and many divisions, was meant to be sectional in and of itself (see discussion below for more about the divisions of the organ as reflecting the sectional music of the time). The Italian organ, however, typically had only one manual, and participated as one element in a multisectional ensemble.[28]

German organ building and composition, therefore, mutually influenced each other: works composed and improvised were often heavily contrapuntal (hence the mixtures that repeated less) and inherently sectional (hence the multiple manuals and divisions)—resulting in distinctive composition types such as the organ chorale prelude, the chorale variation, and the praeludium.

25. Bartel, 74.
26. Fuhrmann 86. Fuhrmann judged Buxtehude to be better than Frescobaldi. See appendix 0.3.
27. Mattheson 1739, part 2, chapter 14, section 41 (page 242).
28. See Bryant.

My particular interest here, however, is in briefly documenting the differences in metric theory, which for me emphasize the importance of treating each "national" style separately in modern studies.

Some differences between French and German meter are as follows:

- Although the time signature "2" was used in German music, a number of authors identified the "2" meter as typically French, including Johann Mattheson (1681–1764), Georg Muffat (1653–1704), Friedrich Erhard Niedt (1674–1708), and Christian Kalkbrenner (1755–1806).[29]
- Michael Praetorius reported that the French always used faster triple meters in their dances.[30]
- The French often taught that [𝅗𝅥𝅮 𝅘𝅥𝅮 𝅘𝅥𝅮 𝅘𝅥𝅮] could be understood as a fast four-beat meter or a slow two-beat meter.[31] This is really quite the opposite of German teachings, in which [𝅗𝅥𝅮 𝅘𝅥𝅮 𝅘𝅥𝅮 𝅘𝅥𝅮] was always taught as having two beats with a fast tactus rate.[32] It was so fast, in fact, that around the mid-eighteenth century, authors such as Kirnberger and Scheibe limited the note values of this meter to eighth notes and slower, with pervasive faster note values—sixteenth and thirty-second notes—generally being prohibited (see chapters 2, 10–11). Further, in German treatises, [𝅗𝅥𝅮 𝅘𝅥𝅮 𝅘𝅥𝅮 𝅘𝅥𝅮] was always understood as a duple meter, never a quadruple meter. This was essential for the reassignation of proportional meters during this time—see chapter 3.
- German manuscript copyists also seemed to acknowledge "national" metric differences, as evidenced by their efforts to (generally) faithfully copy French music. For example, in the keyboard manuscript P 801 (early to mid-eighteenth century) consisting of multinational compositions by Bach, Georg Philipp Telemann (1681–1767),

29. Mattheson 1713, 78–79. Muffat 1695, preface. Niedt, part 1, cap. IV. Kalkbrenner, 6.

30. Praetorius 1619, 74.

31. See, for example, Loulié, 32.

32. It could be that Loulié was referring to surface or perceived speed and that the Germans referred to the underlying tactus rate. If the note values of Loulié's meter were slower (i.e., half and whole notes), then even if the underlying tactus speed was fast (as the Germans taught it), the surface speed would still feel slower than if the note values were sixteenths. This tension between tactus tempo and surface speed will be addressed in various places throughout this study.

Jean-Henri d'Anglebert, Guillaume-Gabriel Nivers (1632–1714), and others, there is a distinct difference between German and French metric notation. In addition to the typically French signature "2,"[33] one can find measures of [𝅵𝅵𝅵𝅵], which rarely occurs in German keyboard music.[34] This manuscript also demonstrates the French predilection for longer note values (i.e., quarter notes, half notes, and whole notes) with [𝅴𝅵𝅵] and [𝅵𝅵]; in contrast, German composers tended to use sixteenth notes with these meters.

- Related to the first "limitation" (i.e., relative speed, not absolute tempo) given above, German musicians rarely felt the need to give precise indications for absolute time. However, the French took the idea of indicating absolute speed to a whole different level, constructing various pendulum contraptions, and calculating the pendulum length for certain pieces or time signatures.[35]

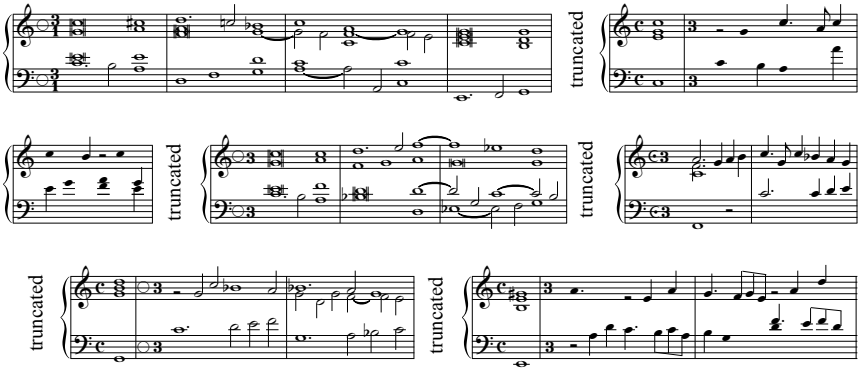
Differences between German and Italian metric theory also abound. For example, at the end of the seventeenth century, Giovanni Maria Bononcini (1673) was still discussing older Renaissance-type mensuration.[36] In Germany around this time, however, Wolfgang Caspar Printz (1689) was lamenting the discontinued use of ϕ and ⊙, the signs for the large *allabreve* meter.[37] It seems that according to Printz (and others as well—see chapter 2), old mensural signs were normally seen as useless (except 𝅵 and 𝅴 as we commonly know and use them today), whereas some Italians—like Bononcini—actually still considered them essential.[38]

33. For example, Louis Marchand's Suite in G, Allemande.
34. For examples of [𝅵𝅵𝅵𝅵] in P 801 see *Praeludien und Fugen* by Guillaume-Gabriel Nivers: the opening Prelude, the few measures just before the *Récit de Voix Humaine*, and the final page of this work (which is a mixture of [𝅵𝅵] and [𝅵𝅵𝅵𝅵]). The rare examples of [𝅵𝅵𝅵𝅵] in seventeenth-century German Baroque music can be found in Weckman's *Allemand/Praludium* in KN 147 (p. 17), and in Buxtehude's *Mit Fried und Freud*, BuxWV 76 (Wettstein). Eighteenth-century works by Bach in this meter are also fairly unusual. Some of these German rarities are listed and discussed in chapter 11.
35. For example, see Loulié, 81–88; Sauveur, 19; D'Onzembray; Choquel, 115–58.
36. Bononcini, 10–14.
37. Printz, cap. IV.
38. See also Penna, 32–33. Johann Samuel Beyer (1703) also acknowledged the older mensural signs, but did not (fully) explain their use. Beyer, 25–26.

This situation in the treatises mirrors what is found in the scores. In *Il primo libro di capricci* of 1642 . . . by Girolamo Frescobaldi (1583–1643),[39] meters such as [𝐜𝅝𝅝|], [⊙3𝅝𝅝𝅝|], and [𝅝𝅗𝅥𝅗𝅥|] abound; the *Messa a quattro voci et salmi* of 1650 by Claudio Monteverdi (1567–1643) shows evidence of 𝅵 + 𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥, ϕ3 + 𝅝𝅝𝅝, ϕ$\frac{3}{1}$ + 𝅝𝅝𝅝 𝐜, $\frac{3}{2}$+ 𝅗𝅥𝅗𝅥𝅗𝅥.[40] Certainly, the earlier one peers into seventeenth-century Italy, the more one is more likely to find such mensural signs. A good example of this is Frescobaldi's *Toccate e partite . . . Libro 1* of 1616 (publication), which includes mensurations such as [𝐜$\frac{3}{2}$𝅗𝅥𝅗𝅥𝅗𝅥|], [𝅝3𝅗𝅥𝅗𝅥𝅗𝅥|], [𝅝$\frac{3}{2}$𝅗𝅥𝅗𝅥𝅗𝅥|], [3𝅗𝅥𝅗𝅥𝅗𝅥 𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥|], [⊙$\frac{3}{2}$𝅝𝅝𝅝] [𝐜𝅝𝅝|], and [𝅵𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥|].[41] See example I.1 for the meter sequence in Frescobaldi's *Canzona quinta* from 1637.[42]

Comparing this with German organ music of the same general period (early to mid-seventeenth century), we see a stark difference.[43] This repertoire is absolutely dominated by simple duple meter. The music of Heinrich Scheidemann (1595–1663), for example, is almost exclusively in some sort

Example I.1. G. Frescobaldi, *Canzona Quinta. Il secondo libro di toccate, canzone* . . . Publication 1637. Opening measures of each change of meter.

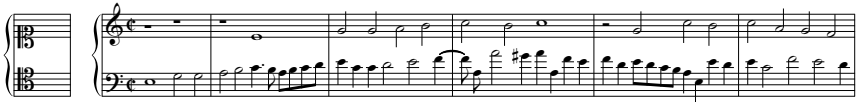



39. Frescobaldi-Capricci.
40. Monteverdi-Messa. This publication is transmitted without bar lines, and so no measure lengths are given here. See Kurtzman, 433–66 for a discussion of meter and tempo in Monteverdi's 1610 Vespers.
41. Frescobaldi-Toccata I. See Paulsmeier for discussions of these meters.
42. Frescobaldi-Toccata II.
43. An article about earlier metric notational practices for the Sweelinck school of keyboard music—from Sweelinck himself to approximately Reincken—is planned.

of duple meter. Because his organ music was transmitted in tablature, the type of duple meter is not known precisely, but the works in KN 209, for example, are most likely in [𝅗𝅥𝅗𝅥] (see chapter 8). In addition, Scheidemann (and his copyists) hardly used any triple meter at all, and when they did, it was usually notated in triplets, or triple meters with fairly simple meter signs that were proportional to the main duple meter—see discussions of Scheidemann's triple meters in chapters 8 and 12. If we peer a little further back in time, to the three volumes of the *Tabulatura nova* (staff notation) by Samuel Scheidt (1587–1654) published in 1624, the same situation prevails. The music contained therein is absolutely dominated by duple meter, either [𝅗𝅥𝅗𝅥] or [𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥]. Volumes 1 and 2 contain only a few instances of triple meter all signed ¢3 (i.e., [¢3𝅗𝅥.𝅗𝅥.], [¢3𝅗𝅥𝅗𝅥𝅗𝅥], [¢3𝅝 𝅝]) or [𝄵𝅗𝅥𝅗𝅥𝅗𝅥 𝅗𝅥𝅗𝅥𝅗𝅥].[44] To my current understanding, these triple meters are also directly proportional, and therefore do not initiate a tactus tempo shift. While Scheidt's music shows slightly more diverse and older-looking meters, this is probably simply because of his place in time, i.e., a younger contemporary to both Michael Praetorius and Jan Pieterszoon Sweelinck (1562–1621). Sweelinck, a Dutch organist who exerted enormous influence over German organists (including Scheidt), is similar: he used mostly duple meter, with rare forays into proportional triple meter, and sections where the beat is divided into triplets instead of the normal duple divisions. Example I.2 shows a short excerpt of what is absolutely typical.[45]

Duple meter in later seventeenth-century (and eighteenth-century) German organ composition is also usually a fairly simple affair, normally being confined to [𝅗𝅥𝅗𝅥] or [𝅗𝅥𝅗𝅥]—i.e., with measure a semibreve in length, not a breve (as is the case for keyboard music written by composers of other "nationalities"). With regard to the triple meter of later seventeenth-century music (e.g., Buxtehude and Bruhns), these are usually expressed with fractional numbers, such as $\frac{3}{2}$—not with mensural signs. In addition, the

Example I.2. J.P. Sweelinck, *Erbarme dich mein*. Ly A1. Ca. 1614–20. Copyist: Andreas Düben (ca. 1597–1662). Staff notation. Opening measures.



44. Scheidt TN. These volumes are in open score, in staff notation, with bar lines.
45. Source information in caption is from Sweelinck ED, vol. 3, preface, 11.

measure lengths of triple and compound meters are generally what one would expect them to be.[46]

The Italian predilection for older meters however, continued with German composers who were heavily influenced by Italy as a result of their cross-continental travels, e.g., Johann Jakob Froberger (1616–67), Georg Muffat (1653–1704), and Johann Kaspar Kerll (1627–93). Consider Muffat's *Apparatus musico-organisticus* of 1690.[47] Besides more modern signatures such as [𝐜𝅗𝅥𝅗𝅥|], 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯 (with single and doubled measures), 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯 (with doubled measures), 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, etc., we can find the continued Italian usage of older Renaissance-type mensural signs: [𝐜𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥|], [𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯|], [𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯|], [○ 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯|], [∁3 + whitened notation|]. While the modern signatures can also be quite easily found in music by "untraveled" German organ composers of this time, meters such as [𝐜𝅗𝅥𝅗𝅥|], [𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯|], [○ 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯|], and [∁3 + whitened notation|] are basically nonexistent.

In addition, compare Froberger to Matthias Weckman, two musicians in fairly close contact.[48] In Froberger's *Libro secondo di toccate, fantasie, canzone, allemande, courante, sarabande, gigue, et altre partite* of 1649 (written shortly after studying in Rome with Athanasius Kircher),[49] meters such as [𝐜𝅗𝅥𝅗𝅥|], [𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯.|] and blackened and whitened/void notation abound. Despite Froberger being friends with Matthias Weckman (who is analyzed extensively throughout this study), and despite Weckman's toccatas displaying an uncanny stylistic and formal resemblance to Froberger's toccatas, Weckman's (and his copyists') metric notation for his organ music is quite different.[50] In Weckman's music, 𝐜 always was [𝐜𝅗𝅥𝅗𝅥|] not [𝐜𝅗𝅥𝅗𝅥|],[51] 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯 had its commonly expected charac-

46. Some measure length "abnormalities" are discussed in chapters 8, 12, and 13.
47. Muffat-App.
48. Weckman and Froberger had a friendly competition probably in 1649–50 in Dresden where Weckman was working at the time. This was just after Froberger returned from Rome. Thereafter, Weckman and Froberger maintained contact via letters and sharing of music. Weckman became organist in Hamburg in 1655. Grove-Weckman. Hans Davidsson also reports a copy of Froberger's music in Weckman's hand (the Hinzte Manuscript) and that Weckman and Froberger exchanged letters (which includes a suite that Froberger sent to Weckman as a present). Davidsson, vol. 1, 2.
49. Froberger. Grove-Froberger.
50. The authorship of Weckman's toccatas in KN 147 has been questioned. See Silbiger 1989, 125–36.
51. There is one exception to this: an *Allemand/Praludium* in KN 147 (p. 17) is in [𝐜𝅗𝅥𝅗𝅥|].

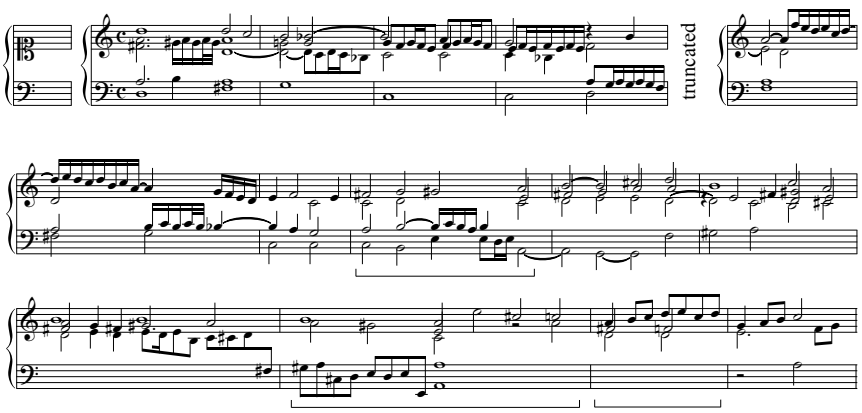
teristics (i.e., six quarter notes per measure),[52] and there is no evidence of him (or his copyists) ever using blackened or whitened notation.[53] As the same is true for other composers of German organ music (such as Buxtehude, Bruhns, Böhm, et al.), we may conclude that Froberger's and Muffat's notational style reflects that of Italy (and France) where they lived and studied for a time.[54]

Italian organ/keyboard composers also did not always feel the necessity to mark off consistently-sized measures. Example I.3 shows the opening few measures of a Toccata by Allessandro Poglietti (d. 1683).[55] Three different sized measures equivalent in length to [𝅝|], [𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥|] and [𝅜𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥|] are marked off with square brackets. Muffat in his *Apparatus musico-organisticus* (1690), Froberger in his *Libro secondo di toccate* [. . .] (1649), Frescobaldi in both books of toccatas (1616 and 1637),[56] all show similar changes in duple meter measure size, even within one self-contained section.

The transmission of later seventeenth-century North German Baroque organ music (i.e., the repertoire forming the locus of this study), however,

52. See chapter 12 for more on the 𝅜 meter in Weckman's music.
53. Weckman did use a few instances of blackened notation in the vocal concertos found in KN 207/6. However, this type of blackened notation has no impact on meter as it is confined to small groups of notes as opposed to being constantly used in a composition section. These small clusters of blackened notes indicate a change of rhythm, not meter.
54. Froberger's teacher Girolamo Frescobaldi most certainly used [𝅝𝅝|] as an almost standard meter, for example, in his *Toccate e partite Libro primo* (Frescobaldi-Toccata I) and *Fiori musicale* (Frescobaldi-Fiori), et al. Further, it strikes me not as irrelevant that two of the three German treatise authors discussed in this study who dealt with whitened/void and blackened notation (as seen in both Froberger's and Muffat's music) were located in southern Germany, in closer range of France and even of Italy (both of which reported the use of whitened notation—Cyr 89–90) than their more northern counterparts: Georg Falck (1630–1689) lived and worked in Rothenberg ob der Tauber (Grove-Falck); Johann Beyer (1669–1744) in Karlsbad and Freiburg (Grove-Beyer). Martin Heinrich Fuhrmann (1669–1745), who also discussed blackened and whitened notation is an outlier in this group, as he lived and worked in Berlin (Grove-Fuhrmann). Nevertheless, because Berlin was a very cosmopolitan city at this time, Fuhrmann's knowledge of international notational styles is not surprising.
55. Source information in caption for example I.3 from Belotti 15b, 8.
56. Muffat App; Frescobaldi-Toccata I, see especially Toccata no. 2; Frescobaldi-Toccata II, see Toccata nos. 2 and 3; Froberger.

Example I.3. Alessandro Poglietti, Toccata. Codex E.B. 1688. Copyist: Emmanuel Benisch (d. 1725). Staff Notation. Opening measures.




seems to be generally much more consistent in measure-size demarcation. This may be because of the generally later transmission of this music, but even Buxtehude's music copied down in the late seventeenth century is very consistent. The same description also applies to two very early eighteenth-century manuscripts—the Möller MS and the Andreas Bach Buch (ABB)—containing works by Buxtehude, Bach, and others (largely in staff notation with only a few exceptions). Further, while it is more difficult to precisely determine the intended measure lengths in tablature, even here, German keyboard music is strikingly consistently measured (see discussions of measure-length determination in chapters 8 and 13).

There are some exceptions, of course. Sections of pieces written in the rhythmically elastic *stylus phantasticus* (as defined in chapter 9) sometimes show evidence of irregular barring: for example, the opening of Buxtehude's Toccata in D, BuxWV 155 transmitted in Codex E.B. (the same source as the Poglietti example, and in the same section dated to around 1688) is actually transmitted almost without bar lines at all;[57] similar irregularities occur at the openings to Weckman's improvisatory-like Italian-style toccatas in KN 147.[58] I suspect the improvisatory nature of this music with its highly elastic

57. The opening of BuxWV 155 in Codex E.B. is odd for more reasons: there is one bar line in the opening section, demarcating a $\frac{5}{4}$ measure. I am unsure as to the reason for this bar line, as it does not seem to be there for any purpose, even for marking off musical gestures.

58. See chapter 13 for a discussion of the authorship of these toccatas.

pulse was the primary catalyst behind this practice: trying to confine such music to a regular tactus is indeed highly challenging and even contrary to its nature. In addition, Nicolaus Bruhns's Praeludium in E (large) in the Möller MS (tablature) shows curious measure delineations for the two sections in $\frac{12}{8}$. These, however, do not affect tempo, but seem to be there either for denoting changes of accent or motive groupings (see chapter 13). Finally, a curious case of inconsistently doubled measures of $\frac{3}{2}$ in one of Weckman's canzonas in KN 147 was for purposes of metric reorganization (see chapter12).

What I wish to make very clear here is that the different "national" compositional styles also had their own notational idiosyncrasies. Even if one such style of notation is (more or less) understood, the principles learned there should by no means be applied wholesale to the notational traditions of another "country."

This certainly does not exclude similarities between different "national" notational styles in French, Italian, and German metric theory, as all descended from a similarly understood Renaissance tradition. In addition, all three traditions adopted a system whereby tempo changes could be expressed (as opposed to the "one tactus rate per piece" of the previous age—see chapter 1), all three systems eventually began using fractional time signatures, and all three systems generally understood $\mathbf{c}$ to have a slower tactus rate than $\mathbf{¢}$.[59] But because of their substantial differences, this current study does not in any way claim to answer specific questions about Italian and French tempo and meter, because, quite frankly, it cannot.

This also means that despite the Germanic origins of Froberger, Muffat, and Kerll,[60] the French and Italian influences on their musical language and notation must preclude them from being part of this study.

### *Impediments to Learning Foreign Musical Styles*

In addition to the above evidence of a distinct German style of notation, there were other factors that may have contributed to its development and preservation. For those in contact with large international establishments, intermixing with foreign musicians would have been fairly easy. But what

59. See for example, Carissimi, 14; Rousseau, 35.

60. Muffat considered himself German, "although his ancestors were Scottish and his family had settled in Savoy in the early seventeenth century." Grove-Muffat. Kerll was born in Adorf, Saxony. Grove-Kerll. Froberger was born in Stuttgart. Grove-Froberger. All three studied in Italy, and Muffat and Froberger were active in France as well.

about musicians in smaller, more rural towns where a good number of the treatises discussed in this study originate? What about those who did not have a wealthy patron, and therefore lacked access to travel and higher education? Certainly, these musicians would have been considerably more isolated from foreign influences than their counterparts in more cosmopolitan settings.

Further, a language barrier is, after all, a barrier. If a musician could not read a document because it was in another language, or could not communicate verbally with an "imported" musician, then little to no style assimilation would have occurred. In addition, these musicians might not always have had the chance to learn another language. Certainly, Latin (in the *Lateinschulen*) was a standard feature of basic education. However, this does not necessarily mean that everyone who finished their education at such a school would have been capable of reading and understanding a treatise published in Latin. And what of the "modern" languages of Italian or French (etc.)? Obviously a few Germans could understand these languages otherwise Giacomo Carissimi's treatise would not have been translated from Italian to German in 1692, and Lorenz Mizler would not have translated Jean Rousseau from French and Johann Joseph Fux's *Gradus ad parnassum* from Latin.[61] The above examples, however, are evidence of a very high education and/or the ability to travel: Carissimi's treatise was translated by one of his German students who had studied with him in Rome; Mizler had a doctorate in medicine, learned other languages (including Polish), and was well appointed and funded.[62]

In addition, consider that not all musicians may have had the will to travel: travel was arduous, dirty, and dangerous, and it took a long time to arrive at one's destination. As a result, many of the musicians/theorists discussed in this study were born, lived, worked, and died in the same small area. For example, Georg Falck (1630–89) spent his entire life in Rothenburg ob der Tauber;[63] Franz Xaver Murschhauser (1663–1738) received his education as a teenager in Munich and remained there for the rest of his life;[64] Daniel Merck spent his entire life in his native city of Augsburg.[65] Buxtehude, despite (or perhaps because of) his excellent position in Lübeck, traveled

61. Grove-Carissimi. For the Rousseau, see URL appendix 0.1. Fux.
62. Grove-Carissimi; Grove-Mizler.
63. Grove-Falck.
64. Grove-Murschhauser.
65. Grove-Merck.

very little, except, for example, for visits to Hamburg.[66] Even Bach himself spent his entire career in a relatively small area of modern-day Germany, with rare excursions to, for example, Lüneburg, Lübeck, and Hamburg.[67] Indeed, Bach's travel to Lübeck exemplifies the considerable difficulties a (poor) musician would have had to surmount in order to arrive at his destination: the young Bach had to travel approximately 250 miles on foot—not even by horse—from Arnstadt to Lübeck.[68]

What is more, in the smaller towns and cities (i.e., not in cosmopolitan centers such as Hamburg), German musicians who found employment with the city or the church generally lived

> away from the affectations and rarified atmosphere of court life, amongst people who had no particular predilection for foreign matters beyond possibilities for trade, and [were] subject to the generally more stable authority of the town council.[69]

Even in the larger more cosmopolitan centers, there was a certain amount of resistance from authorities to (foreign) operatic productions and activities. Opera achieved only limited success as a commercial venture in a few of the more prosperous cities, and the authorities generally considered it unsuitable for the Stadtkantor to be involved with such enterprises.[70]

Indeed, as Kerala Snyder reports, the opera in Hamburg was under attack by the Pietist ministers Anton Reiser and Johann Winckler.[71] This would have further alienated German musicians from international influences.

Certainly, there were many instances of the intermixing of opera and liturgical activities. For example, (1) some considered the dramatic elements of the *Abendmusiken* given by Buxtehude in effect to be opera;[72] (2) while Johann Adam Reincken (1643–1722), organist of St. Jacobi in Hamburg, never wrote opera, this was not because of religious restrictions, as "a preacher at his church, Hinrich Elmenhorst, wrote librettos for the opera."[73]

66. Synder, 107.
67. Clement 2014, 137–38; Fock; Wolff 2014, 40, 214.
68. Clement 2014, 137–38.
69. Sadie, 152.
70. Sadie, 153–54.
71. Snyder, 65.
72. Snyder, 65.
73. Snyder, 117.

Nevertheless, as seen above, there were elements within German society that encouraged a separation of city/church and court/opera. This would have offered another impediment to the creation of a musical "melting pot": if at least some city and church governments wished to distinguish themselves from the foreign influences of the court and opera, a "German" style of music would be a perfect vehicle to this effect.

In summary, then, while certain composers did indeed transcend linguistic boundaries and assimilate many "national" styles into their music, many musicians stayed in the same communities their whole lives, thereby limiting their contact to foreign influences. Luminaries such as Jean-Baptiste Lully (1632–87), George Friedrich Handel (1685–1759), Muffat, Froberger, and even Bach, Weckman, and Buxtehude had exceptional experiences. But even with all their opportunities, Bach's, Weckman's, and Buxtehude's music is still very distinctly German.

*Did German Musicians Perform Foreign Musical Styles Idiomatically?*

Since a number of German musicians did have contact with foreign musical styles, we might ask whether they played and understood these compositions idiomatically. I believe the answer to such an inquiry would be "it depends." Certainly, German musicians living in cosmopolitan cities and courts must have learned different "national" styles from their foreign colleagues, and would have been able to imitate them at will as part of their arsenal of style and variation. Bach himself spoke of this in his "Short But Most Necessary Draft for a Well-Appointed Church Music," relating how German musicians were expected to perform all kinds of music from Italy, France, England, or Poland.[74] However, there still would have been a few elements that would have impeded the full expression of these styles. For example, Bach did not have access to the distinctive French classical organs to play from his copy of Nicolas de Grigny's works. French organs had no parallel in Germany. The idiomatic sound of these instruments is an essential feature of French Baroque organ music, without which it cannot be fully and convincingly expressed.[75]

In terms of metric notation, I wonder if the differences in "national" notation traditions could have impeded a German musician in the correct interpretation of the relative tempos within a composition. To give but one example, Weckman probably understood what Froberger's whitened $\frac{6}{4}$ meter

74. Bach Reader, 149–50.

75. See Stauffer 1993 for further reading.

meant, since he was in contact with his friend via correspondence. But what about others? Whitened notation was rarely discussed in treatises of any language. Perhaps it was so well understood that no one needed its explanation? I find this highly doubtful, as blackened notation (the sister notation of voided/whitened notation) was openly derided by some at least as far back as Praetorius's Syntagma Musicum III (1619)—see chapter 4.

Further, while German authors discussed the typically French "2" meter, their explanations of how to perform this meter rarely seems to have coincided with that reported in extant French treatises. Is this a sign that they did not understand the tempo implications of this French meter, or is it merely evidence of German authors assimilating a new meter and transforming it for their own purposes? Questions such as these perhaps can be satisfactorily addressed only after a thorough study of the individual characteristics and idiosyncrasies of each of the "national" European metric notational styles.

*Treatises from Southern Germany and Italy*

To gather as much data as possible, some German treatises have been included that do not directly relate to the music analyzed in parts 2 and 3 or the geographic area (i.e., central and northern Germany) from where it originated. For example, Leopold Mozart's 1756 treatise was published in Augsburg, situtated in what is now southern Germany. However, I believe that by this late date, tempo theory had become more standardized, and the distinctions between southern and northern areas were no longer such a major factor.

Other south German authors discussed in this study, however, did indeed hail from an earlier date (i.e., mid-Baroque), and sometimes their metric theory was slightly different from that of their more northern counterparts. For example, Daniel Merck (Augsburg, 1695) asserted that [𝅗𝅥𝅮] had four beats, whereas his more northern colleagues still maintained the old "Praetorian" two-beat structure. Approximately fifty years later, however, Merck's four-beat pattern would become more of a norm in treatise discussions (see chapter 5), regardless of their geographic origin.

Finally, as previously mentioned, references to Carissimi's treatise also occur fairly frequently, as it was translated by his German students (the Italian original is lost). Carissimi's work resembles contemporary south German treatises in a number of ways, and therefore can be used to explain the differences between northern and southern German metric theory (i.e., south German musicians may have been more influenced by Italian theory than their northern collegues).

## Boundary No. 3: Organ Literature

While the choice to focus on organ music may at first seem arbitrary, the opposite is actually the case. If we are searching for the core repertoire that truly epitomizes the peculiarities of German Baroque meter, one natural point of inquiry would be to explore the music of that most German of all institutions: the Lutheran Church. Certainly, the music performed there consisted not only of organ music, but also choral ensemble music such as the concerto and alternatim, i.e., the genres of composition that essentially created the space for tempo shifts (see below and chapter 1). So why focus on organ music? The reasons for this are mainly that (1) the organ participated in the creation of sectional music, the genre of music that was conducive to tempo shifts; (2) organ music did not use Italianate or older-looking Renaissance-type meters like the choral music of this time did, but more modern ones; and (3) by focusing on one instrument's repertoire, other notations can be discovered that may be overlooked in more generalized studies. These points are discussed in detail below.

So far, I have strongly alluded to the importance of sectional or segmented music in the discussion of tempo shift notation. At this point, I would like to clarify what I mean by this. These terms refer to music from the second half of the sixteenth century until the end of the seventeenth century (and early eighteenth century) which featured many shifts of texture. This could be via the polychoral genre, which alternated vocal or instrumental choirs; [76] alternatim, which often would alternate a verse of a chorale or chant with another texture such as a setting in complex counterpoint[77] or an instrumental setting; or the concerto, which alternated vocal choirs, choirs of instruments, and soloists.[78]

Most importantly for this study, it seems that this kind of segmentation provided a space to develop tempo segmentation—i.e., tempo shifts—as well. It would perhaps go too far to say that segmented music created tempo shifts, as there is evidence—although scant—of changes of tempo occurring before the flowering of this style of music: see for example, Seybald Heyden's derision of tempo shifts in 1540, and Heinrich Glareanus's 1547 discussion

76. Carver (see whole study on polychoral music).
77. Herl, 129. Urania, preface. Carver, chapter 1.
78. Praetorius 1619, 51, and his *Polyhymnia caduceatrix et panegyrica* of 1619 (Polyhymnia).

of the same.[79] However, it does not seem to be overstating the matter to say that the period encompassing the decades surrounding the turn of the seventeenth century was a time in which composers experimented with the segmentation and alternation of various musical parameters: tempo, as one kind of musical parameter, was not left out of these activities. In fact, Praetorius baldly stated that concerto composition needed these tempo shifts to be musical and to avert boredom.[80] His section on tactus and tempo in the Syntagma Musicum III (1619) is almost completely devoted to explaining how and why time signatures and mensural signs signify different tempos for the purposes of the concerto. Treatises by other early German Baroque musicians more or less show the same trends.[81]

The reader may question, therefore, why parts 2 and 3 of this study are devoted primarily to solo organ repertoire, rather than to segmented music in its totality. First, as a liturgical instrument, the organ participated in the performances of this particular type of choral repertoire (such as the concerto and alternatim), and therefore the types of composition written for this instrument were highly influenced by liturgical segmented music. The solo organ praeludia of Tunder, Buxtehude, Bruhns, Böhm, etc., all show dramatic shifts in texture and meter, and therefore could be said to have borrowed their style from liturgical segmented music.

We can state this even more strongly, and say that organ repertoire actually embodied segmented music—i.e., it did not merely borrow from a style—because the German organ was a sectional instrument in and of itself. In the preface to his Musae Sioniae I, Praetorius compared the groups of instruments/voices involved in sectional music to the organ's manuals:

> Moreover, such *variatio per choros* is also on organs (which is as much a particular ornament and enrichment today in Christian times as it was in the time of David's and Solomon's temple) because one may alternate between two or three manuals.[82]

In other words, just as the instrumental and vocal forces could change within a segmented composition, so the organist could change manuals,

79. Heyden, 5 (URL appendix 1.1). Glareanus, 205–6 (URL appendix 2.11). See also chapters 1 and 2.

80. See chapter 1 and URL appendix 1.2.

81. See for example Quitschreiber; Gengenbach; Hase, etc.

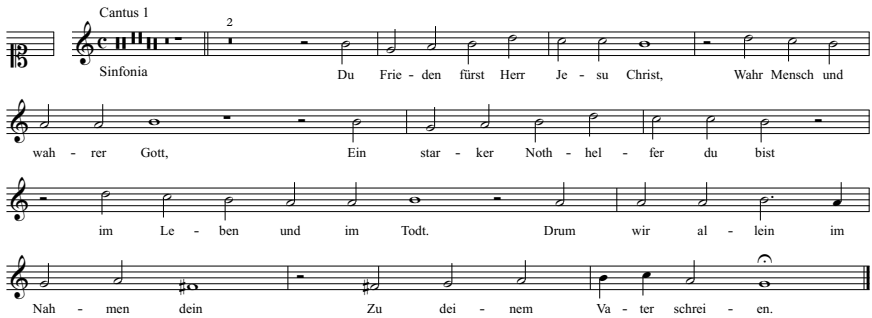
82. Musae Sioniae I, preface entitled *Ecclesiastis & Philomusis*. URL appendix 0.4.

thereby controlling the different segments, divisions, or choirs of sound within the organ.

But I propose that there is an even greater reason to assert that solo organ repertoire is an ideal place to begin an inquiry into German Baroque tempo: this limitation isolates and emphasizes specific notation practices that would otherwise be left to the wayside, such as a nuanced discussion of tempo words, and *stylus phantasticus* notation.

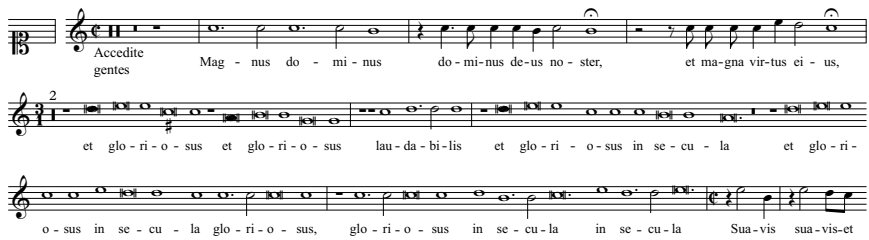
But most importantly, it serves to focus on meters that would become the norm in the eighteenth century. Choral music in the second half of the seventeenth century had a notation that was strikingly different from keyboard repertoire, generally using outdated-looking Renaissance-type or Italianate mensurations/meters. The difference between choral and keyboard notation is particularly glaring in the cases where composers—such as Buxtehude and Weckman—wrote in both styles of music. Their choral music was dominated by older, more traditional meters, while their keyboard music abounded in modern time signatures. See examples I.4–6.[83]

Example I.4. D. Buxtehude, *Du Frieden-Fürst Herr Jesu Christ*, BuxWV 21. Uppsala 3. 1675. Copyist: Gustav Düben (1628–1690). Opening measures of Cantus 1.

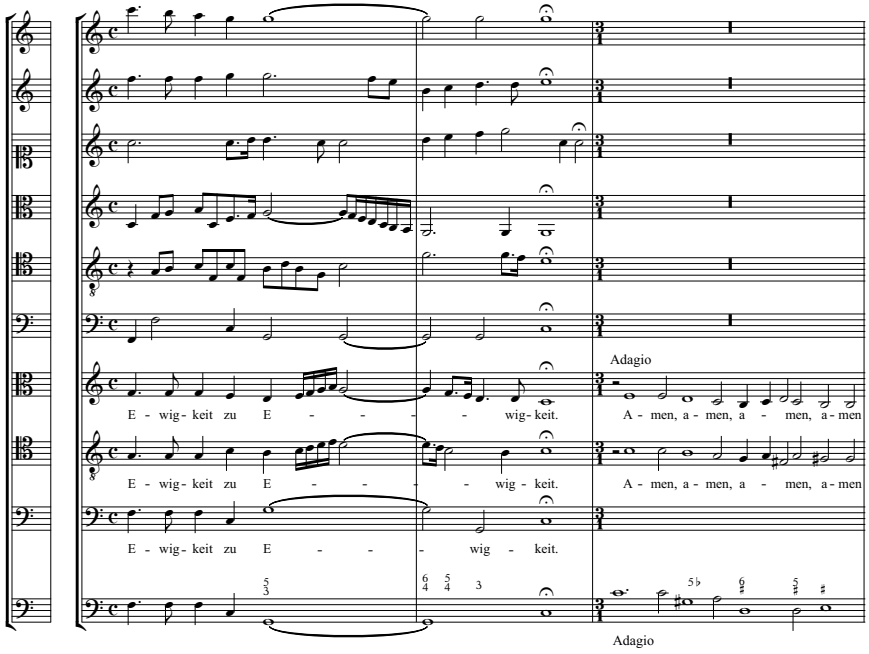



83. Source information for both examples I.4 and 5 given in captions from DCDC. Source information for example I.6 from Silbiger 1989, 119. NB: Pages 1–16 of KN 207/6 are in an unknown hand; the rest of the manuscript (including this excerpt) are in Weckman's hand.

Example I.5. D. Buxtehude, *Accedite gentes accurrite populi*, BuxWV 1. Uppsala 1. 1679–83. Copyist: Gustav Düben (1628–1690). Opening measures of Canto I.




Example I.6. M. Weckman, *Weine nicht*. KN 207/6. Autograph. 1663. Full score original. Measures 122–24.



Some of the differences between German choral repertoire of the later seventeenth century and organ/keyboard music as gleaned from examples I.4–6 are:

1. The choral repertoire tended to use more traditional Italianate or older Renaissance meters, such as [𝐜𝅝𝅝|], [𝅵𝅝𝅝|], and 𝅗𝅥, while its keyboard music shows far more modern signatures such as [𝐜𝅗𝅥𝅗𝅥|], [𝅵𝅗𝅥𝅗𝅥|], 𝅗𝅥, 𝅗𝅥, 𝅗𝅥, 𝅗𝅥, 𝅗𝅥, etc. (see parts 2 and 3).
2. With rare exceptions 𝐜 had semibreve-length measures in mid-to-late-seventeenth-century organ repertoire (of the type studied here)—i.e., [𝐜𝅗𝅥𝅗𝅥|]—and was often paired with dominating note values equal to or faster than quarter and eighth notes;[84] in choral repertoire, however, this signature could easily be paired with breve-length measures with longer dominating note values—[𝐜𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥|]. This [𝐜𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥|] was a particularly old mensuration, dating back to the Renaissance.
3. To my knowledge, 𝅗𝅥 cannot be found in Buxtehude's organ works—either as [𝅗𝅥𝅝𝅝 𝅝𝅝|] or as [𝅗𝅥𝅝𝅝|]. This is an old signature, harkening back to the Renaissance (see chapters 1, 3, 8, and 12). While it continued on in German Baroque choral music, it was generally eliminated in keyboard music. It does recur in two very different forms in Weckman's and Scheidemann's organ music, with halved or quartered measures, with simultaneously halved or quartered note values—essentially appearing as 𝅗𝅥 or 𝅗𝅥 instead of 𝅗𝅥. See chapters 8 and 12.

These differences in Buxtehude's notation style may be because the earliest sources of most of his organ music date to the eighteenth century when older mensurations had most certainly been "purged" from common practice. However, with very few exceptions,[85] these particular meters are also not to be found in Weckman's organ/keyboard music, which dates generally to the mid-seventeenth century. For example, 𝐜 is notated as [𝐜𝅗𝅥𝅗𝅥|] not [𝐜𝅝𝅝|]; and 𝅗𝅥 is notated as [𝅵3𝅗𝅥𝅗𝅥𝅗𝅥|],[86] not [𝅗𝅥𝅝𝅝 𝅝𝅝|] or even [𝅗𝅥𝅝𝅝|].

84. There are rare exceptions: see the discussion of Buxtehude's *Mit Fried und Freud*, BuxWV 76, in chapter 11.
85. Weckman's *Allemand/Praludium* in KN 147 (p. 17) is in [𝐜𝅝𝅝|]. Canzon [IV] in C, KN 147 opens with [𝐜𝅝𝅝|] for three measures and then changes to [𝐜𝅗𝅥𝅗𝅥|] (no section change).
86. See chapters 8 and 12 for discussions of this meter.

It actually seems that keyboardists may have been particularly intent on purging old-looking meters from their scores. For example, while Scheidemann's intabulation of Hans Leo Hassler's "Alleluia, *laudem dicite"* in KN 208[87] transmits [𝅗𝅥𝅗𝅥|𝅗𝅥𝅗𝅥|]–[3𝅗𝅥𝅗𝅥𝅗𝅥|], the original motet shows [𝅗𝅥𝅗𝅥𝅗𝅥𝅗𝅥]–[3𝅝𝅝𝅝]. This and other such instances are discussed further in chapters 8 and 12.

Limiting this study to organ music also highlights other tempo notation issues related to performance forces that may otherwise be missed. The use of tempo words in Bach's mono-sectional organ music (i.e., not the music based on the seventeenth-century organ praeludium style of composition) is a case in point. A quick glance at this repertoire is enough to observe a rather striking paucity of tempo word usage. His Trio Sonatas, BWV 525–530 (P 271/1 and P 272) for organ are an entirely different matter, however, as almost every movement of every sonata is prefaced with a tempo word. It seems that their origin in previously composed chamber music may be one reason for this difference. For example, Bach's Brandenburg Concertos and the transcriptions of Vivaldi's concertos all use tempo words frequently—in addition to their primary tempo cues (i.e., time signature and note values). The general nonuse of tempo words in Bach's mono-sectional organ music of the "non-transcription" variety, then, seems to be a characteristic of the tempo notation for this instrument + compositional style.

In retrospect, it seems strange that the use of tempo words was not ubiquitous across Bach's oeuvre. However, it may be that Bach preferred to add tempo words to works for multiple musicians to ensure that they thoroughly understood the correct tempo for proper ensemble playing. When chamber music was transferred to the organ as solo music, the tempo words were brought along as well, even though, as a soloist, the tempo would have been completely in the organist's hands.

Focusing on the repertoire for the organ has also exposed other notations not discussed in the treatises. This is especially the case for *stylus phantasticus*—an improvisatory and virtuosic style of music, discussed extensively in chapters 9 and 13. As hypothesized in chapter 9, sections in *stylus phantasticus* in organ repertoire were removed from the constraints of the proportional system: they always had a slower underlying tactus rate (but not surface speed) than the surrounding passages,[88] no matter whether they were directly juxtaposed to a proportional meter or not. This, to my knowledge,

87. Copyist: Franz Schaumkell (ca. 1590–1676). Scheidemann-Schott, vol. 4, 91.

88. The difference between underlying tactus rate and surface speed is first discussed in chapter 1. See also chapters 2, 9–13.

was never mentioned in the treatises. Therefore, the study of tempo related issues in organ music allows for the identification of very specific notation traditions that more generalized studies would miss.

Limiting this study to organ music rather than including vocal composition and other types of instrumental works, therefore, serves to highlight different streams of notational styles within the subcategory of performance forces. It allows us to stay firmly within the segmented style of composition while enabling us to move beyond Renaissance notation and outside of Italian influence. For readers interested precisely in this Italianate or Renaissance system replete with all manner of mensural signs, I refer them to Karin Paulsmeier's work.[89]

### *The Organ: Ubiquitous and Prestigious*

Limiting this study primarily to organ music might seem strange to some, as the organ is often seen as of lesser importance in today's music-making scene. In the Baroque era, however, the organ was an integral part of musical life. As David Yearsley states:

> Though I am being more than a little polemical in adjusting the historiographical frame around the landscape of Bach keyboard studies, I do believe that an organ-centered revision of scholarly approaches to the field is long overdue. It is not that we are lacking important studies of many aspects of Bach's organs and his music, but rather that the kinds of questions one asks as a professional musician, scholar or amateur player are necessarily shaded by one's mode of access to the music and the relative prestige of the recognized instruments now in use.[90]

The organ participated in music making in almost every sphere of life: city, church, and court—even in the private middle-class home (through small organs and related instruments, such as the pedal clavichord). Especially through the church, it was ever-present in the cities and towns that dotted Germanic areas, and therefore affected the lives of practically everyone, both rich and poor, noble and peasant. So it would be a mistake to undervalue the importance of this instrument and its repertoire.

Michael Praetorius, the author whose metric theory forms a large part of the foundation of this study, is well known for holding the organ in the highest regard. In Syntagma Musicum II: *De organographia*, Praetorius crowned

89. Paulsmeier.

90. Yearsley 2017, 300.

the organ with the title "king of all instruments."[91] We may assume that this praise was due in part to

1. The instrument's ability to perform by itself the segmented style of music that characterizes much of his music (see above).
2. The use of organ in almost every aspect of liturgical music: from congregational singing (via alternatim) to chorale improvisations and settings (such as his *Ein feste Burg* for organ)[92] to continuo in works using larger instrumental forces.[93]
3. The widespread building of these instruments—for despite the considerable expense for those who erected these great instruments, they were by no means rare: Praetorius was often asked to test and celebrate the installation of new instruments.[94]

This last point deserves more attention here: organs were constantly being built and used in churches all across Europe. In essence, the organ was a prized possession and status symbol of the city, church, and even court. This can be demonstrated with reference to a slightly different geographical location (i.e., outside of the area encompassing modern Germany), and time period: the organ in The Netherlands in the sixteenth century. In the iconoclasm of this period, many organs in the Calvinist and Zwinglian areas of Europe were destroyed as a result of their being seen as detrimental to piety. However, in the Calvinist cities of The Netherlands, these organs were the pride of the city, and therefore the residents "were loath to destroy expensive musical instruments which, within memory of most of the citizens, had been paid for dearly through municipal or church taxes."[95] As the school of organ composition and playing that was generated (slightly later) by Jan Pieterszoon Sweelinck (1562–1621) had a great influence on German cities such as Hamburg (Johann Mattheson called Sweelinck the "Hamburg organist maker"),[96] this anecdote does not seem to be inapplicable here.

91. "König aller Instrumenten." Syntagma Musicum II, 86.
92. Musae Sioniae VII.
93. Praetorius 1619, 146–52.
94. Grove-Praetorius. In at least one case, Praetorius was also accompanied by Heinrich Schütz and Samuel Scheidt. Smallman 31.
95. Bruinsma, 206.
96. Mattheson 1740, 332. "Hamburgischen Organistenmacher."

The admiration and penchant for the organ did not wane in the years after Praetorius's and Sweelinck's deaths. Incredibly expensive organs were constantly erected as the pride of a city, and churches and councils employed a whole cohort of people to have it played: the organist himself—including luminaries such as Franz Tunder (1614–1667), Matthias Weckmann, Johann Adam Reincken, Dieterich Buxtehude, Georg Böhm, Nicolaus Bruhns, and Johann Sebastian Bach; the bellows-pumpers; and the people involved in building and maintaining them.[97] Should anyone need any further proof of the ubiquity and prestige of this instrument, he or she need only leaf through the pages of *The Organs of J. S. Bach* by Christoph Wolff and Markus Zepf. This book documents only the organs in the cities with either a proven connection or with a reference in connection to Bach—and there are approximately forty-five cities listed (some with several organs per city).[98]

Organ music was a substantial part of Bach's output, comprising multiple volumes in modern publications (for example, eleven volumes in the Bärenreiter edition).[99] In fact, his early career was dominated by organist positions: he was the church organist in Arnstadt, beginning in 1703; city organist in Mühlhausen, 1707; court organist in Weimar, 1708; and while employed as the court Kapellmeister in Köthen (beginning in 1717), he tried (unsuccessfully) to obtain the prestigious organist position at St. Jacobi in Hamburg. Even during his tenure in Leipzig as *Thomascantor* and music director (beginning in 1723), he continued to give organ presentations, give advice on organ building, and test new organs, all the while composing music for the instrument (e.g., Clavier Übung III) and revising older organ works (e.g., the Leipzig Chorales, BWV 651–668 in P 271/2).[100] Finally, a substantial portion of his obituary was devoted to praise of his facility on the organ.[101]

The organ participated in both court and city/church life, although the larger instruments were generally built for the "spacious surroundings of the large town churches rather than in the court chapels."[102] In addition, the

97. The organist himself could be involved in its maintenance (as is often the case today). Snyder, 71.
98. Wolff 2008.
99. Bach-Bärenreiter.
100. Wolff 2008, xxi–xxv.
101. Bach-Dok III, no. 666. Mizler MB, vol. 4, 171–72.
102. Sadie, 154. The organ was assuredly not confined to the city church, as Bach's position as organist in ducal court of Weimar certainly attests. Wolff 2008,