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The Fulfilment of Mattheson's 'Quart-Wunder': 18th-Century Performance Practice and the Gradual Standardization of a New Cadential Pattern

ABSTRACT

In the second volume of his *Forschende Orchestre (Quartae Blanditiae, 1721)*, Johannes Mattheson explains how a fourth, considered against the bass, is always dissonant and should resolve by going one step down. Mattheson mentions common compositional practice and judgement by (his) ears as distinctive arguments. He blames theorists who describe the fourth, in one way or another, as a consonance. Mattheson mockingly quotes Francisco de Salinas (*De Musica, 1577*), who referred to a mass by Josquin to demonstrate that a fourth is consonant. If we could only trace back that mass, says Mattheson, then maybe a 'Quart-Wunder' will occur? Apparently, Mattheson was not fully aware of the 'Quart-Wunder' in his own time: a specific cadential pattern gradually developed from the late 17th century until it became one of the most typical cadence formulae in the 18th century. In this cadence, a fourth above scale degree five in the bass proceeds by going one step up instead of resolving downwards. The fourth is seemingly treated as a consonance: Mattheson's 'Quart-Wunder' is fulfilled. In this paper I will first explore Mattheson's position and arguments. I will then demonstrate how performance practice played a crucial role in the development of the cadential scheme at hand, using Corelli's Op. 5 (3rd edition, 1710) and Tartini's Treatise on Ornamentation of ca. 1750 as main sources. Finally, I will present repertoire examples from the end of the 17th century until ca. 1750 to clarify the different steps from early experiments (implicit acknowledgment) to full mastery (explicit acknowledgment).

1. INTRODUCTION

Is the fourth a consonant or a dissonant interval? Lots of theorists have been struggling about this issue, defending their own positions, and arguing against other views. In the middle of the 17th century, Athanasius Kircher already wrote:

Amongst authors there is a huge controversy about the fourth; either it is considered as a consonance, or it is classified as a dissonant interval.¹ (Kircher 1650, vol. 1, 238.)

This quotation is almost literally repeated in Koch's *Musikalisches Lexicon*:

Amongst the theorists, there has been an extensive struggle about the question if a fourth is a consonance or a dissonance. And one has never fought about the main issues in art so long and so heavily as about this question. And although the struggle has been put aside for a long time, the question has never got a decisive answer.² (Koch 1802, 1185.)

¹ 'Magna inter Autores controversia est de Quartas utrum ea numero consonoru, utrum dissonorum adscribenda fit intervalloru'.

² '[U]nter den Theoristen [hat sich] ein weitläufiger Streit über die Frage entsponnen, ob die Quarte eine Consonanz, oder eine Dissonanz sey, und es ist nie über die wichtigsten Gegenstände der Kunst so lange und so

This contested fourth is a crucial ingredient of a very specific cadential model, which I have earlier called 'Marpurg's galant cadence'. In this paper I will first explore the theoretical context by connecting Johannes Mattheson's position on the fourth to Wilhelm Friedrich Marpurg's description of the cadence at hand. After that, I will try to demonstrate how performance practice in the beginning of the 18th century highly contributed to the gradual acceptance of this cadence pattern in composition, and ultimately — although remarkably late — in theory.

2. MATTHESON'S VIEW ON THE 'DISSONANT' FOURTH

One of the highpoints in the theoretical disputes on the fourth is without any doubt the second part of Johannes Mattheson's *Forschende Orchestre* from 1721. The full title of this volume reads: *Quartae Blanditiae, Oder Der verdächtige Quarten-Klang*, which could be translated as 'The suspicious fourth'. In more than 200 pages, Mattheson presents an extensive historical overview before he explains his own approach: a fourth against the bass is always a dissonance and should resolve by going down a step. At the same time, he attacks some of his colleagues who consider the fourth as a consonance, in a very personal and even aggressive way. The titles of the chapters clarify his targets: 1) von der Quarta; 2) Calvisiana; 3) Werckmeisteriana; 4) Baryphoniana; 5) Nachlese.

In the second chapter, Mattheson mocks Sethus Calvisius (1556–1615) and compares him with another theorist, Francisco de Salinas (1513–1590). Like Calvisius, Salinas sticks to the consonant nature of the fourth. At a certain point in his discussion, Salinas uses a fragment of a mass by Josquin as evidence. Mattheson first refers to Calvisius and then quotes this specific passage from Salinas to make his own point. He writes:

maybe he [Calvisius] played the viola da gamba; or maybe he went to school in Naples, with the Greeks, because to him the fourth sounded as sweet as to Salinas. Maybe he imitated Josquin Deprez, who successfully started with a fourth in a duet, and therefore could not be blamed. [And then Mattheson quotes Salinas] 'When I used to be in Napels, I have often heard how the Greeks in their sacred chants also used the fourth as lowest interval in their harmonies, and it was amazing and enjoyable to listen to. At last Josquin Desprez, who was considered the most important composer of his time, used the fourth in a two-voice fragment. [It appeared] in the beginning of the part that opens with Resurrexit, in his Mass *l'homme armé sexti toni*. He [Josquin] would not have

heftig gestritten worden, als über diese Frage, die, obgleich der Streit darüber sich längst gelegt hat, noch nichts weniger als entschieden ist'.

done so, if the fourth would be judged as a dissonance, [...] [Mattheson continues:] If this mass would still be available, we should perform it, and maybe a *Quart-Wunder* will occur.³ (Mattheson 1721, 521–22.)

Mattheson apparently did not know Josquin's composition in question. But this mass is actually preserved. In Example 1 below, the B-flat above the entrance of the bass is a fourth. It appears on a strong beat and is not prepared as a suspension. Today we would explain this type of dissonance as an *appoggiatura*, but this was an uncommon embellishment in the sacred vocal repertoire of that time.

Ex. 1. Josquin, *Missa l'homme armé sexti toni*, Credo, Et resurrexit.

That Mattheson really did not believe that Josquin could have written a passage like this, is apparent from how he continues:

For me both the present and the old Greeks deserve their service, and their harmonies with the fourth. When they say that the fourth sounds pleasant, I say the opposite. My no is as good as their yes. [...] But when the ears have to judge, and when the majority of votes counts, then the yes-brothers will be on the losing end. It might well be that Josquin made a mistake, and the Neapolitan Greek might have added a sixth to the fourth. The first situation is possible, and the second one is exactly that, what we call the suspicious fourth, which is amazing and enjoyable to listen to.⁴ (Mattheson 1721, 521–22.)

Mattheson's position in this passage is obvious: based on listening experience and compositional practice, the fourth is always a dissonance and should be prepared and resolved in a correct way. He does not appear to believe in miracles... Yet it is noteworthy that he seems to include an exception at the end

of this quotation: when the sixth against the bass is involved as well, the fourth becomes a suspicious interval, which could even be pleasing to listen to. Before I turn to Marpur's cadence type, in which this six-four chord plays a crucial role, I quickly want to jump about two decades further, to Mattheson's *Vollkommene Capellmeister* of 1739. In the chapter specifically dealing with the fourth, Mattheson includes some uncommon resolutions that were part of the then current musical style. In one of the examples, the fourth resolves by going one step up:

There is yet another, not very common way to resolve the fourth through the fifth that follows, as shown opposite, where the ornament should make the best of it. This is such an unusual technique, since the resolution does not take place through the lower consonance, but through the upper one.⁵ (Mattheson 1739, 310.)

Example 2 shows the example given by Mattheson. The technique he describes, is demonstrated twice: a fourth against the bass that resolves by going up a second. In a footnote, Mattheson adds a terminological remark to this example (Mattheson 1739, 310):

Syncopatio catachrestica, that is how such an exceptional technique is called, when a dissonance resolves in an unusual way; and this can be said about several ornamental patterns, although mostly when the fourth is involved. The Greek word, *κατάχρησις*, normally means an abuse, from which the said syncopation is derived.⁶ (Mattheson 1739, 310.)

Ex. 2. Mattheson, example of *Syncopatio catachrestica* (Mattheson 1739, 310).

It is obvious that in his *Vollkommene Capellmeister* of 1739, Mattheson employs a more progressive approach towards the fourth than in his 1721 *Forschende Orchestre*. But he still treats uncommon resolutions with much care and considers them as exceptions to the general rules.

3. MARPURG'S GALANT CADENCE

According to the German theorist Wilhelm Friedrich Marpur, a new cadence type emerged around the end of the 1720s, exactly in between the two Mattheson sources I have just discussed. Marpur explains this cadence in a letter from 1761, later published in the second volume of his *Kritische Briefe* in 1763. Marpur writes:

In the last thirty-some years, the galant style has invented a peculiar kind of perfect cadence, which, it is true, agrees with the

³ 'vielleicht hat er [Calvisius] eine Viola di Gamba gespielt; vielleicht ist er in Neapolis bey den Griechen in die Schule gegangen / da ihm die Quarta so lieblich geklungen / wie dem Salina. Vielleicht (sic) hat ers dem Jodoco Pratensi nachgemacht / welcher mit einer Quarta im Bicinio feliciter angefangen hat / und deswegen keine Straffe geben dürfften. Graecos quoque in canticis ecclesiasticis (dum essem Neapoli) saepe audivi, ea (Quarta) ad graviore concentus utentes, & mirabiliter audiendo delectabar. Postremo Jodocus Pratensis, inter Symphonetas sui temporis facile Princeps, Diatesseron usus est in principio cantilenae duarum vocum, ea in Missa, quam super l'homme armé sexti toni composuit, in ea parte, quae incipit Resurrexit; quod non utique fecisset, si dissonantiam esse judicasset [...]' 'Wenn doch die Misse noch zu bekommen wäre / wir wolten sie einst aufführen / vielleicht geschähe ein Quart-Wunder'.

⁴ 'Ich meines Theils lasse den heutigen / so wohl als den alten Griechen / beydes irhen cultum, und ihren Quarten-concent von Herzen gerne. Sagen sie / es klinge ihnen die Quarta lieblich; so sage ich das Gegenspiel. Mein Nein ist so gut / als ihr Ja. [...] Wenns aber auf die decision der Ohren / und derselben majora vota ankommen soll / so dürfften die Ja-Brüder wohl den kürtzern ziehen. Jodocus kann wohl eine Note verschrieben / und die Neapolitanischen Griechen mögen wohl die Sextam mit der Quarta vergesellschaftet haben: denn das eine ist möglich / und das andere ist eben dasjenige / so wir Quartae blanditias nennen / quibus audiendo mirabiliter delectamur'.

⁵ 'Man hat aber noch einen andern nicht so sehr betretenen Weg, die Quarte mittelst der folgenden Quint wolklingend zu machen, etwa auf nebenstehende Weise, dabey der Zierath das beste thun muß. Denn die Rückung ist in so weit uneigentlich weil die Lösung nicht nach der Gewohnheit durch eine Consonanz unterwärts, sondern oberwärts erfolgt'.

⁶ 'Syncopatio catachrestica heisset eine solche ausserordentliche Rückung, wenn eine Dissonanz ungewöhnlicher Weise aufgelöset wird: und das kan von verschiedenen figürlichen Gängen gesagt werden, obgleich am meisten von den Quarten. Das Griechische Wort, *κατάχρησις*, heißt sonst ein Mißbrauch, wovon besagte Syncopation ihren Nahmen hat'.

last of the two previous cadences with respect to the last two notes in the upper voice [2–1], but it differs from it in this: that in the six-four chord that prepares the cadence, the fourth on the antepenult in the upper voice must precede.⁷ (Marpurg 1763, 9.)

Marpurg shows both a 5-voice and a 4-voice rather abstract model as illustration of his ‘galant’ cadence (Example 3). This scheme has some characteristic features. First, the cadential six-four chord with the fourth, which is scale degree 1, in the top voice. This first scale degree does not resolve as expected, that is, descending one tone lower, but instead moves up to scale degree 2. The second feature of this specific cadence is the concluding 2–1 melodic movement in the upper part. These elements taken together: the upper voice pattern consists of scale degrees 1–2–1 above a sustained scale degree 5 in the bass and is supported by a cadential six-four and a dominant chord.



Ex. 3. Marpurg, example of his ‘galant cadence’ (Marpurg 1763, 9).

This cadence seems already to have become a standardized scheme by the end of the 1750s. Not only did Marpurg describe it in his *Historische Briefe* of 1763, but Johann Friedrich Agricola hinted at it as well. In 1757, Agricola translated and annotated Tosi’s *Opinioni* of 1723 as *Anleitung zur Singkunst*. As he describes the most common upper-voice patterns in cadences, 3–2–1 and 1–7–1, he adds this footnote: ‘The most common cadence nowadays in arias is the following: C D C’ (Agricola 1757, 194).⁸

When this cadence is considered against the background of the writings of Johannes Mattheson, it is clear that Mattheson touched upon some of its essential features: he mentioned the ‘suspicious’ or double nature of the 6/4 chord and he included the upward resolving fourth as an option, although an uncommon one. Mattheson was an up-to-date and prolific theorist but did not point at Marpurg’s galant cadence as a normative cadential scheme. Apparently, the scheme was not yet generally accepted at the time when Mattheson wrote his *Capellmeister*.

And indeed, Marpurg’s quote and the origination history of the cadence at hand clarify why it is understandable that Mattheson has not grasped it as a standardized scheme. Marpurg writes that this cadence was ‘invented’ by the ‘galant style’. He does not specify how it showed up and how it was being used in the musical output around 1730. Based on my research so far, there seem to be two major aspects that highly contributed to the gradual acknowledgment of this scheme: instrumental

⁷ ‘Der galante Styl hat indeßen seit dreyßig und etlichen Jahren, sich noch eine besondere Art von ganzer Cadenz erfunden, die zwar in Ansehung der beyden letzten Noten der Oberstimme, mit der letzten der beyden vorigen Cadenzen übereinkömmt [2–1]; aber darinnen von ihr unterschieden ist, daß aus dem die Cadenz vorbereitenden Sextquartenacorde, die Quarte in antepenultima in der Oberstimme vorhergehen muß [...]’.

⁸ ‘Die heut zu Tage in den Arien gewöhnlichste Cadenz ist diese: c d c’.

performance practice on the one hand, and similar patterns in compositional practice on the other hand.

4. MARPURG’S GALANT CADENCE: PERFORMANCE PRACTICE

One of the crucial sources for the study of performance practice in the first half of the 18th century is Guiseppe Tartini’s *Treatise on Ornamentation*. The original manuscript from the beginning of the 1750s is now considered lost, but there is a reliable French edition published by Pietro Denis in 1771, entitled *Traité des agréments de la musique*. Tartini wrote it after 25 years of teaching: it could be seen as the ultimate survey of his own performance practice which he shared with his pupils in Padua from 1726 on. In this treatise, Tartini exclusively deals with ornamentation, including embellishments of cadences in strict meter.

In a couple of his examples (Example 4), the basic voice leading framework of Marpurg’s galant cadence is clearly discernible: scale degree 2 above 5 in the bass is preceded by a thrill starting from below, with scale degree 1. Especially in the two last cadences, this first scale degree is emphasized by a longer note value in comparison to the rest of the thrill. A common reduction of the upper voice would leave out the smaller note values and only keep the 1–2–1 pattern as a result. But Tartini does not consider these cadences as possible embellished realizations of a 1–2–1 upper voice motion above 5–1 in the bass. For him, these are just performance options for a simple 2–1 melodic cadence. Tartini’s own reductions — or better: the basic cadences as they appear in the score — are shown next to their corresponding embellished version.

Ex. 4. Tartini, various examples (Tartini 1961, 112–13, 115–16).

There is earlier evidence that the 1–2–1 pattern served as the basic voice leading pattern in embellished cadences. In 1710, the famous Amsterdam publisher Estienne Roger published the first six sonatas of Corelli’s Op. 5. Its initial publication had appeared in Rome 10 years earlier, in 1700. But Roger’s edition contains the sonatas ‘composed by Corelli as he plays them’ (Corelli 1710, title page).⁹ The fast movements are printed without any additions, but in the slow movements Roger includes a third staff on top of the original score,

⁹ ‘composez par Mr. A. Corelli comme il les joue’.

showing the free embellishments as Corelli is supposed to have performed them at the time. At the end of some of these movements, the original voice leading of the final cadence has been changed.

In the Adagio from the first sonata (Example 5), the original cadence on the second staff exhibits a 1–7–1 cadence in the melody. But the basic melodic motion of the embellished version on the first staff could be seen as a 1–2–1 pattern. The first D of the bar is clearly emphasized: it is tied from the previous bar and then becomes a fourth against the A in the bass, one of the most typical suspensions in a baroque cadence. In the original version, this fourth indeed resolves to the expected third, C-sharp, on the second beat. But in the written-out ornamentation, the next fundamental note after the long (embellished) suspension is an E, scale degree 2. Obviously, Corelli did not play a bare 1–2–1 melody: the flourish is a crucial stylistic ingredient of his performance of this cadence. And yes, the very last note of the embellishment on the first beat is scale degree 3, which mediates the stepwise motion from the first to the second scale degree. However, the stress on scale degree 2, with a trill, as the penultimate of a final cadence, instead of the original seventh scale degree, is clearly discernible.

Ex. 5. Corelli, final cadence of Op. 5, Sonata No. 1, Adagio.

The same cadential embellishment is exactly repeated in some of the other movements (see Example 6 for the end of the first movements of Sonatas No. 2 and 6, respectively.) As is clear from these examples, Corelli's performance practice resembles the cadence options provided in Tartini's treatise.

Ex. 6. Corelli, final cadences of Op. 5, Sonata No. 2, Grave, and Sonata No. 6, Grave.

5. MARPURG'S GALANT CADENCE: COMPOSITIONAL PRACTICE

As I have shown earlier in this paper (see Example 2), in 1739, Johannes Mattheson described a contrapuntal tech-

nique in which the fourth resolves by going up. He does not specifically connect it to a cadential context, but there is a clear similarity to the 1–2–1 upper voice line in Marpurg's galant cadence (see Example 3). But Mattheson is not entirely convinced of this option in composed pieces, since he emphasizes that 'the ornament should make the best of it' (Mattheson 1739, 310).¹⁰ Probably not by coincidence, the quick embellishment in his examples contains the expected resolution before going up. Similar and other uncommon resolutions of the fourth are already described by Christoph Bernhard in his *Tractatus compositionis augmentatus* of around 1650, almost a century before Mattheson's *Vollkommene Capellmeister*. Bernhard, a pupil of Schütz, probably originated the term 'syncopatio catachrestica' and was one of the first theorists to explain some of the specific techniques of the Italian *seconda prattica* in the first half of the 17th century.

Among these, Bernhard discusses what he calls 'Ellipsis'. The essential idea is that a necessary consonant resolution of a dissonance is left out. The first of Bernhard's examples (Example 7) displays a sustained fourth above scale degree five in the bass, after which the expected final tonic follows. The upper line is written in soprano clef and below is the version as it 'should be' (Bernhard ca. 1650, 84).¹¹ The second example shows a similar dissonant fourth, but now embellished. Contrary to Mattheson's version, the ornamentation here goes directly up instead of first going down.

Ex. 7. Bernhard, examples of ellipsis (Bernhard ca. 1650, 84).

In the second half of the 17th century, composers keep using these 'ellipsis' techniques in their compositions, together with patterns that resemble Marpurg's galant cadence to a high degree. In one of his sacred motets, the *Exurge cor meum* of 1670, Carissimi twice writes a cadence that is very close to the second of Bernhard's examples above. At the end of Example 8 the soprano reaches the dissonant fourth above scale degree 5, has an ascending embellishment and then 'resolves' to the same note, the tonic, again.

Ex. 8. Carissimi, *Exurge cor meum* (own transcription).

Not only Carissimi, but also a composer like Stradella seems to have considered this kind of cadence as a valuable option. A nice corpus that illustrates more of such cadence patterns are

¹⁰'dabey der Zierath das beste thun muß'.

¹¹'Solte also stehen'.

the *Motets à voix seule accompagnée de la basse continue* of Guillaume Nivers, published in 1689. Nivers served most of his life in Paris, but was influenced by the Italian style, especially in this type of compositions. The examples below (see Example 9) all exhibit cadences in which the fourth in the upper voice does not resolve as expected. Sometimes an ascending embellishment is included, but in other cases Nivers sticks to the essential 1–2–1 pattern.

Ex. 9. Nivers, selected examples from the *Motets à voix seule* (Nivers 1689, 73 and 86).

The same cadences can be found in works of the generation after Nivers as well, for instance in the works of Clérambault and François Couperin. Below is an example from Couperin's *Leçons de Ténèbres*, printed in 1714.

Ex. 10. Couperin, cadence example from the first lesson of the *Leçons de Ténèbres* (Couperin 1714, 2).

I am fully aware that these examples are rather exceptional spots in the oeuvre of these composers. And indeed, these voice leading techniques could be considered as licences, corresponding to the way Mattheson saw them in his *Vollkommene Capellmeister*. But they have played an important role in the gradual acceptance of Marpurg's galant cadence as a regular cadential option in written pieces, together with some other formulas that are part of the compositional output in the beginning of the 18th century and which I have shown at EuroMAC 8 (Leuven 2014). All these cadence types have partly crystallized into Marpurg's galant cadence, which has become a standard scheme after the first decades of the 18th century. A nice proof of this development can for instance be seen in C. P. E. Bach's Prussian and Württemberg sonatas from the beginning of the 1740s, where Marpurg's galant cadence is one of the most frequently used cadences.

6. CONCLUSION

In one of the most extensive contributions to the theoretical struggle about the fourth, Mattheson cannot believe that this interval could be treated as a consonance. It would be a miracle if composers would do so. But before that time, composers were already including, although occasionally, cadential patterns in which a fourth continues in a freer way than expected. And in performance practice around the time that Mattheson wrote his treatise, the 1–2–1 upper voice pattern of Marpurg's galant cadence became a standard and basic option for the improvised embellishment of cadences. Was Mattheson's 'Quart-Wunder' therefore already fulfilled by then? Maybe not completely yet, but the gradual acceptance of the dissonant fourth moving up in a cadential context definitely led to the standardization of Marpurg's galant cadence as a fixed scheme. In 1739, when the *Vollkommene Capellmeister* was published, Mattheson was still reluctant to accept it as a standard option. But by that moment, this cadence was already part of the general vocabulary of lots of composers. Even more: Marpurg's galant cadence became a highly typical scheme in the second half of the 18th century. Obviously, the fulfillment of Mattheson's 'Quart-Wunder' in the first decades of the 18th century did not happen all of a sudden, through the performance of a particular piece as Mattheson suggested. Rather it was fulfilled slowly, in a gradual way. Or in other words: Mattheson was actually attending the miracle that he himself described, but he did not see it — or did not want to see it — with his own eyes.

KEYWORDS

Cadence, Dissonant Treatment, Harmonic Fourth, Performance Practice, Schemata.

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