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Bach and the Corporeality of Emotions

Authorised Transcript

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Authorised transcript* of an edited, live video discussion with Bettina Varwig (BV), Ruth Tatlow (RT), and John Butt (JB)

Moderated by David Irving (DI). Recorded on Thursday 15 July 2021

The logo for Bach Network, featuring the word 'Bach' in a large, black, serif font and 'Network' in a smaller, red, cursive font.

JOHN BUTT | RUTH TATLOW | BETTINA VARWIG

discuss

Bach and the Corporeality of Emotions

CHAIR: DAVID IRVING

* This video presents selected highlights from a live sixty-minute roundtable session, 'Bach and the History of Emotions'. It was recorded on 15 July 2021 as part of the 19th Biennial International Conference on Baroque Music (University of Birmingham, UK, 15 to 17 July 2021). We thank the conference organisers and delegates for granting us permission to use the recording for *Discussing Bach*.

The following transcript has been edited and expanded for clarity and will at times differ from the spoken live discussion.¹

DI Good evening, everyone, and welcome to the Bach Network session roundtable, 'J. S. Bach and the History of Emotions'.² My name is David Irving. I'm an ICREA Professor at the Institució Milà i Fontanals de Recerca en Humanitats, which is a centre of CSIC in Barcelona, although I'm currently on a visiting fellowship at Clare Hall, Cambridge. So, I'm beaming in from there.

And now, I'll pass over to Bettina; thank you very much, Bettina.

BV Thank you. Thank you, David, for this introduction, and thank you all for joining us.

I hope some of you had a chance to watch our pre-recorded video where each of us introduced some aspects of our current thinking about 'Bach and Emotions'.³ My own approach, to summarise very briefly, looks at the way that early eighteenth-century bodies and souls were understood to work as a foundation for then thinking about how music could have had this power to 'move the affections' in those human body-souls. In a nutshell, early modern human bodies were experienced as porous and volatile systems of flow. They were permeated by various liquids such as blood and humours and spirits, and they were susceptible to influxes from the environment that could tamper with those flows. Music, as one kind of this material influx, could penetrate a listener's body-soul to alter these flows; to wrench their innards; to soften their hearts; to raise their spirits; and so on.

I thought what I'd do in this brief opener today is offer one example of how that process might have worked. I've chosen an aria from Bach's *Matthew Passion* (BWV 244), the bass aria 'Gebt mir meinen Jesum wieder!'. It comes after Jesus is handed over to Pilate, and it reflects on Judas' betrayal. The text demands, 'Give me back my Jesus! See the money, the murderer's fee, tossed at your feet'. Dan Melamed has identified this as a typical rage aria. He says it's, 'of a kind often given to bass singers in operas whose characters were particularly upset'.⁴ But where exactly is the rage in this?

A common approach would be to enumerate those features of the score that are traditionally understood to evoke rage. According to Patrik Juslin, music psychologist, that could be fast tempo, minor mode, dissonance, high sound levels, staccato articulation, complex rhythms, and so on.⁵ We might imagine Bach's listeners hearing this aria and decoding some of its features as representing rage, such as its fast runs and its complex rhythms, and so on. These features could then be put alongside potential word-painting elements. For instance, Albert Schweitzer suggested that some of the motives in this aria depict the money being thrown onto the floor, and so on.⁶

Now, that's all well and good. But then if I go and watch, for instance, Thomas Quasthoff perform this aria in Peter Sellars' 2010 staging of the *Matthew Passion*,⁷ I find the sensation of rage much less represented in the notes – than somehow emanating from Quasthoff's own voice and bodily comportment; from the violinist's fingers and bow and torso moving about; and from the energy of these musical gestures that the ensemble collectively produce in real time – their timbre, their sonic impact, and so on. The emotive potential of this aria seems to reside less in a cognitive process of representation and decoding than in a process of bodily-affective transmission or contagion.

How might this kind of affective transmission have worked for an eighteenth-century listener? The emotion of rage at the time was understood as a heightened bodily-spiritual state caused by a disordered flow of the spirits around the body. Here's the English writer John Downname (1571–1652) on the experience of anger. He says:

It makes the hair stand on end... the teeth to gnash like a furious Bore... the tongue to stammer, as being not able to express the rage of the hart. The bloud [blood] ready to burst out of the veins... the breast to swell, as being not large enough to contain their anger, and therefore seek to ease itself, by sending out hot-breathing sighs. The feet to stamp the guiltless earth... So that anger deforms the body, from the hair of the head to the sole of the foot.⁸

The Lutheran preacher Johann Jacob Schmidt (1690–1757) reported even more violent symptoms, including the pulse being agitated so much that 'eventually blood flows out of the mouth, nose, ears, or womb', and 'occasionally even the soul is driven out of the body'.⁹

Now, for lack of evidence I shall assume that none of these more drastic symptoms afflicted the musicians or listeners in Bach's Leipzig performances. But I think we might be underestimating this aria's emotive power if we reduce it to an exercise in decoding musical signifiers. Bodies, souls, and spirits were being moved, shaken, and transformed in encountering these affectively charged sounds. (I'm just very briefly going to share my screen here.) One of the most unsettling aspects of this piece in performance, I think, is the sustained irregularity of its pulse. Pulse was, of course, one of those volatile bodily motions that was easily disrupted by musical vibrations.

Bach's aria is not a rhythmically settled musical experience. If you look at that opening downward leap of a fourth to begin with: this can become such a resolute foot-stamping gesture if an ensemble embraces the heaviness of that first downbow and its rebound. It offers an immediate shock to the system because the instant syncopation in the upper parts labours against those two crotchet [quarter note] beats of the bass. These bass crotchets then fail to settle into a steady pattern by shifting to a quaver [eighth note] pulse with a syncopation over the bar-line and then stopping abruptly at the end of that phrase. In a 1987 recording by the Dresden Staatskapelle,¹⁰ I can feel that initial plunge of the upper strings into that gap between the two bass notes in the pit of my stomach – see what you think. I'll just play the opening.

I think Bach's notated text affords such feelings of disruptions, unsettlement, in numerous other ways as the piece unfolds. So, when the voice enters, that opening leap on 'Gebt' is an awkward way in, and that is later compounded by increasingly wide leaps in the opposite direction. Quasthoff's voice, for instance, audibly breaks on one of these later octave jumps. Excessive energy seems to spill

out from his performance at various points, for instance in that gratuitous embellishment in bar 15, and from his forceful exhalations on the word 'seht' ('see'). These on-the-beat exhalations seem intent to relieve that 'swelling of the chest' that Downname noted. And, also, from that insignificant syllable 'zu' ('at') which again has that hard attack – it bursts in too early each time it is pronounced. Here's just one example of where it comes ahead of the fourth beat of the bar.

The continuo group's stop-and-start progress continues in this excerpt too, where they drop listeners into this kind of sonic pothole, at the beginning of the first beat of bar 23. Then they shift that rhythmic pattern from the middle of the bar to the beginning of the bar when it is repeated, and so on. And even the final cadence is overrun by this wanton extra crotchet in the solo violin.

So, in all these ways, I think Bach's musical script invited performers to enact and inflict on their listeners that sense of discombobulation that is articulated in Schmidt's description of anger, where he says, 'the body with its solid and liquid parts is being thrown or tossed about between two end-points'.¹¹ What I would like to emphasise here, then, is that while these effects of disruption, overexertion, bursting out, are all afforded by the notated text, their contagious affective charge is only activated each time anew in a moment of performance.

In a recent recording by the Netherlands Bach Society, it is their collective abrasive force and the rasping gut-string timbre that to me encapsulates that potency of anger to deform body and soul.¹² Those vigorous string-crossings produced by the solo violinist here – to my mind – offer not just a specific image of money thrown to the ground but a sonic experience of air, spirits, or innards being torn apart and tossed about.

I think I have about a minute left. So, I'm just going to play you a little bit of their performance of this aria to see if maybe we can start to hear it with ears and bodies that are a little bit more attuned to the very physicality of this affective transaction.

I'll stop it here in the interest of time. Thank you very much.

DI Well, thank you very much, Bettina, for a wonderful presentation. There's so much to take in and digest there. We'll return to this theme during the discussion.

We'll now move to the second paper of the session. Please welcome Ruth.

RT Thank you very much, and thank you, Bettina. It's just wonderful to hear where all this is going.

My main point in the video was that the most perfect proportions – 1:1 and 1:2 – were considered the most effective to move the emotions. I'm now going to give a little bit more theory and some more detailed examples of how.

The physicists and scientists [of Bach's time] emphasise the physicality of the pulsing proportions and the unconscious calculation of the listeners. Here's Gottfried Wilhelm Leibniz (1646–1716) in 1712:

I think that the reason for consonance must be sought from the congruity of the beats – that is, the sounding number. Music is a secret exercise of arithmetic where the mind is unaware that it is counting... Indeed, those who think that nothing happens in the soul of which it is not conscious are mistaken. Therefore, even if the soul does not realise it is counting, it nevertheless feels the effect of this insensible calculation.¹³

This idea proved influential and long-lasting and was still going strong in the 1800s. Here's the acoustician Ernst Chladni (1756–1827), writing in 1802:

The effect of the notes on us is based on the fact that we feel pleasantly moved by the proportions. We feel the temporal proportions of successive movements... we don't calculate them ourselves, as if we were concerned about the numbers through which time and space are expressed, but rather nature counts for us, and the results of the harmonious proportions give us pleasure ("Wohlgefallen"), and are purposefully reworked by artists.¹⁴

He was partly citing his contemporary Johann Gottfried Herder (1744–1803), who wrote:

The sensitive creature feels himself moved through a reproduction of his inner strength. He feels himself pleasantly moved through proportions and can do nothing other than rest in these proportions. This is music, nothing else.¹⁵

The Lutheran music theorists and theologians repeated the basic acoustical information – the perfection of the proportions 1:1 and 1:2 – and then they brought God into the picture in a very major way. Here is Andreas Werckmeister (1645–1706) in his chapter on 'Why Humans Find Such Pleasure in Music':

Firstly, all consonances, as well as the motions of meter and beat, are purely those proportional numerals that are closest to the unison or equality – 1:1... Because music is a matter of clarity and order, and as such is nothing other than a pattern and construct of God's wisdom, a human being will naturally be moved to joy when this construct and wisdom of the benevolent Creator is instilled into his ears and subsequently into his heart and affections through such reverberating numbers... Should a well-disposed individual hear music, his spirit senses the beauty which the Creator has ordered, but he would remain unaware of its source had not the divinely ordered numerals and harmonic proportions shown him the way.¹⁶

This, too, was repeated throughout the eighteenth century. In 1725, Johann Joseph Fux (1660–1741) wrote:

The octave is contained in many things, and its inherent proportions 1:2 make it the most perfect interval of all... It can easily be seen that this ordering was wonderfully adhered to by God in all his works and creatures.¹⁷

In 1742, Lorenz Christoph Mizler (1711–1778) translated and amplified Fux, and put a footnote at this point, writing:

These edifying thoughts are founded on the old truth: the more complex a thing is, the more imperfect it is; the more simple a thing is, the more perfect it is. That is why philosophers have always had to consider God to be the simplest of all beings above all others, and hence, logically, also the most absolutely perfect.¹⁸

These views are commonplace. But now we have to jump between theory and practice.

Understanding the theory and theology, musicians claimed that the perfect proportions move the emotions, and recommended proportional ordering. In 1717, Christoph Raupach (1686–1758) gave his views 'On the various powerful effects of Music on the hearts and minds of people', writing:

The two consonances, the octave and the fifth, cause a certain expansion of the life spirits [which Bettina talks about] – the former to a greater extent than the second as a result of the size of their proportions, which have the form 1:2 and 2:3.¹⁹

As we've also seen, 1:1 was considered even more perfect. Johann Mattheson (1681–1764), the music theorist who always has many answers and guidelines to offer, in this case frustratingly still doesn't say exactly how:

What is required is an elegant ordering of the parts in the melody or in an entire work, almost in the way one orders and designs a building, and makes a plan or sketch to show where specific rooms should be placed... Loveliness consists in precise observation of the correct proportion of all parts of a melody (or work) with one another... [The composer] should outline his complete project on a sheet of paper, sketch it roughly and then set it in order before proceeding. In my opinion this is the absolute best way to organise a work so that each part demonstrates a true proportion, uniformity and unison, for nothing in the world is more pleasing to the ear than this... Moreover, if "Gleichförmigkeit" – equality, which is 1:1 – in all things, if it contributes a great deal so that it is not only pleasant to the human senses, but also thereby becomes more long-lasting, as is well known to good architects, then it is easy to guess why some things lose little or nothing of their inner goodness with age.²⁰

But **how?** How did composers put these long-lasting, well-structured, and perfect 1:1 unisons and 1:2 proportions that emanate from, and even describe, the

wisdom of God, and that would move the listener so powerfully? Were 1:1 and 1:2 proportions deliberately incorporated into musical structures in various ways to make them more emotionally affective?

Musicologists have traditionally jumped to the 'Affektenlehre' ('Theory of Affects') from such descriptions – and although the intervallic proportions are necessarily part of it, this is clearly not the entire spectrum of effects that emanate from 'all consonances, as well as the motions of meter and beat', as we've heard.

My first two examples are of short-term effects in George Frideric Handel's (1685–1759) 'Hallelujah' chorus (HWV 56, Part 2, no. 39) – thanks to Fred Fehleisen's paper.²¹ After the fully harmonised opening, Handel suddenly breaks into a striking unison and octave passage – unison being 1:1, octave being 1:2 – using stepwise pitches in a symmetrical, palindromic 1:1 shape: A to B to C# to D to C# to B, a symmetrical pitch pattern. And there's an octave jump at the words 'God Omni-', which is 1:2. These are all expressions of 1:1 and 1:2 – here's a very short excerpt to remind you.²²

As you heard, it's very striking; it comes in octaves, and as a unison, and an octave. A few bars later, God is again described in unison: this time, it's the sopranos singing 'King of Kings, and Lord of Lords' on the same note, the unison, and they are in unison. There's another example of unison in *Messiah* used for 'God'. It's the unison in the male voices in the opening of 'The Lord gave the Word' (HWV 56, Part 2, no. 33), which is the most profound theological point in Christianity. So, did Handel choose this because of how he understood God, proportions, and emotional effects in proportions?

Then, there's the obvious symmetry you get in the arrangements of sections of parts – here you see the chorus of *Brich dem Hungrigen dein Brot* (BWV 39). It's typical; we all know about that. And then come larger-scale examples related to the pulsing of tactus, Leibniz-like, where the effect is felt, even though we don't know we are counting. Here is an example of consecutive 1:1 from the sonata of the *Musical Offering* (BWV 1079) – an offering for the King, fittingly in 1:1.

And here is *Die Amerikanerin*, an example from Bach's younger son Johann Christoph Friedrich (1732–1795), where you get 2:1 in 1776. The movements are consecutive, and this would be picked up in the pulses. So, the listener subconsciously pulses the bars – regardless of changing tempi – in these consecutive and symmetrical structures, and thereby the listeners sense the architectural symmetry of the classical 1:1 and 1:2 structure. The body is moved by the vibrations, the life spirits expanded, and, finally, the emotions are moved without ever knowing how or why.

So, that's a taster of the eighteenth-century theory and some examples of possible practice. That's it.

DI Well, thank you very much, Ruth, for your presentation. And there's again so much to take away there and for us to think about in preparation for the discussion.

We'll now move to our third presenter, Professor John Butt.

JB The presentation I gave in the previous video was published in its full version earlier this year. The title of the article, if you're interested, is 'Bach and the Dance of Humankind' – which is a skit on the old Wilfrid Mellers' book *Bach and the Dance of God* – and it comes within a Cambridge University Press volume called *Musicology and Dance*, edited by Davinia Caddy and Maribeth Clark, if you're interested in looking at it in more detail. What I suggest is that music is both inflected by dance – in Bach's case and in other composers' too – but also, what is slightly more subtle, it's also about dance and consequently about your previous experience of embodied thought and emotion. That's a very, very brief summary of that article.

What I'm going to try and do now is to account for two pieces that I've performed and, in fact, recorded recently and which have particularly influenced me in thinking further about this subject.

The first one is not actually by Bach at all; it's Jean-Philippe Rameau's *Pigmalion* (Pygmalion) of 1748 which is a one-act opera about the Ovid story of Pygmalion. As you probably know, the perfected statue is brought to life by a prayer to Venus and the beautiful statue starts to move – that's the first thing she does – and then she asks existential questions, including: 'Who am I?', 'What am I doing here?', 'What's happening here?'. Of course, she's doing this in music which perhaps Rameau and his contemporaries saw as a primal form of human expression. What she basically demonstrates then is the notion of the 'blank slate' who learns through experience. This is very well documented in French culture of the time as an import from British empiricism.

But most interesting for my topic here is that she is then taught to dance, and movement becomes absolutely fundamental to her being. In fact, the original actor and the implications of this score are that the statue does more as a dancer than as a speaker: she dominates the scene through her increasingly skilful dancing. What Rameau does here is provide an astonishing catalogue of French dances, one which transforms into the next and often only heard in fragmentary form – it's like a sort of 'sales catalogue', really, for the best dancers of the period. The sequence starts with a rather stumbling Sarabande, as if the statue is trying to dance and hasn't quite done it, is being shown by the graces how to do it, and eventually ends with a refined and developed Sarabande which is danced by the statue alone.

Now, as I said already, there is the obvious British influence here. But, also, the figure that really comes to my mind is Abbé Étienne Bonnot de Condillac (1714–

1780), the French thinker on embodiment – he's mentioned at the end of my original essay. He's a figure who saw gesture and dance as fundamental to the human condition, followed by music and only then followed by speech. His later treatise from the 1750s was perhaps inspired by Rameau, I think, where the statue learns the world.²³ In other words, Condillac suggests a statue as a sort of primal human being who learns about the world and all the human affordances through touch, and this forms the very basis of being.

Now obviously this has very little to do directly with Bach, but it clearly shows that he was very much part of a broader cultural world which consciously emulated French culture and, also, brings in this notion of touch, feeling, dance as essential human characteristics.

My analysis of dance-inspired movements – interestingly in Italianate styles of music: da capo, concerto, and so on (these can be multiplied ad infinitum) – shows dialogues between national and historical styles, and I would claim co-opt our memory of what we know already. Hence the way I think this sort of music – Bach's music, in particular – still works today, albeit now with a different bank of memories that we bring to this music.

One final performance experience for me made me ask the question, 'How did Bach show the potential for reflective and actualised emotion before he was fully influenced by the modern Italian style, and before he'd fully digested dance, or even perhaps encountered it?' Are his insights into the way we might listen and feel in real time possibly evident really early on?

Here the *Actus tragicus* (BWV 106) is the obvious thing to look at, 'Gottes Zeit' ('God's Time').²⁴ a well-known symmetrical structure, but also with a sense of linear development and psychological change. The coming of the New Testament allusions introduces the astonishing part of the soprano calling for Jesus, and the remainder of the cantata brings the mitigating comfort of the new covenant, which re-tunes old Hebrew law. In the first half of the cantata, the emotions are very much representations, typical seventeenth-century style: 'In Him we live... in Him we die', different mournful music; 'Put your house in order'; 'The old covenant says you must die'. The music here, using my film hat, you could say is mickey-mousing; it's a sort of picture book of images much like some of the school devotional literature of the time.

But the Christian portion is strikingly different in its implication for emotion because here we have unexpected distorted and immediate moments right from the soprano entry, which is surely the best-known aspect of this cantata. The extended piece, 'In deine Hände' ('Into your hands'), although very much in the same ostinato style of the early music, develops into something much more extraordinary – the bass is taken up to the very highest part of the range. We really hear and feel a sort of otherworldly sound with Jesus' words 'Today, I will be with you in paradise'.²⁵ But I think there's also the quick case of sudden gaps in the

texture on the words, for instance, 'sanft und stille' ('gentle and quiet'), and also, 'Der Tod ist mein Schlaf worden' ('Death has become my sleep'). There are sudden moments of a clearing, as it were, in the sound which forces us to somehow reflect on this by really giving a jarring – or comforting, but jarring – sensation to our ongoing listening experience.

Now obviously all I've mentioned can come under the general heading of word painting, and analogues can be found with many earlier composers. But in this context, I think what counts is the setting up of regularity and then the arrest or modification of movement. Bach, in other words, is already showing the potential for music that not only models our experience in the present, but gives us time to reflect and absorb the emotional, physical, and mental implications of concepts.

In all, then, this might remind us of the reflections of Erdmann Neumeister (1671–1756) and others, that if a style of music has a strong emotional effect in the secular world (as operatic aria), why can't it be adopted to spiritual practice? The emotional level then is co-opted for the spiritual. But I would also argue Bach is also reflecting on the developments in the broader human world; stirring, training, and co-option of emotions are always of deepening our own sense of being and our personal and communal development.

Thank you very much.

DI Well, thank you, John, for another fantastic presentation.

So, we have had three very diverse approaches to Bach and the emotions: the physiological, from Bettina; the proportional or mathematical from Ruth; and then John's approach through the physical and regulative qualities of dance, with a number of different contexts brought in, such as the English and French context as well. And I'm really delighted to see the interface with performance coming through in all of these presentations.

So, I'd like to invite Wendy Heller [WH] now to propose a question.

WH First of all, I adored the video that the three of you did. I just found it really uplifting to think through these issues the way the three of you have. I had two comments and questions, and you could go off in any direction you want to stimulate some discussion. I was struck in the video by the commonalities in all three of your approaches. That there was – if you made that Venn diagram – definitely a place, Ruth, where your work and your thinking about how proportions feel, and Bettina's wonderful bodily work, and John's dance overlap and really provide us with a new way of thinking about Bach, as if to say, 'Oh, we're actually allowed to think about emotion'. This right away already removes, I think, a screen on something we haven't been able to see beyond in the past. So, I would invite you to say a little more for this audience, about where you think those commonalities are; that would be the first part.

The second part, that could be part of that, would be where you'd like to see this work go, as other people like me listen to it and say, 'This is so great'; that would be a second question – you could take any of this that you please.

The third part, I'm thinking, concerns mostly John: I can't wait to spend more time with you and think about this more next year, I hope. But when you have these dances, what's so interesting in some ways about Bach, is that we're not getting dances, of course, in the order that one gets in a prescribed suite; we're getting them in this moment, and then it disappears, and that moment. And we're getting them over this, over the progression of the cantata. I mean, there's a difference between a Minuet at the beginning of a cantata compared to one that happens at the end, you know, and so on. So, I think that there are some interesting questions that might be raised about that.

BV Thank you, Wendy, for such an exciting series of questions. First of all, it is about bringing our discourse on Bach and surrounding repertoire sort of up to speed with that, almost. But then also to see where that can take us more broadly in terms of how we think about, say, an early modern Western anthropology; and how music gives us a sort of way into those much broader questions about what constituted human beings. And how did they interact with the world, and sort of use music as a way to alienate us a little bit from the ways in which being an early modern self, an early modern musician, really takes a sort of leap of the imagination for us to try and re-enter into that. I think music just has this potential to allow us to make that leap. And then, I think, that ideally will reflect back onto the way we perform this stuff, and the way we analyse it, and the way we talk about it, and all those things. But for me it's this way in which music can serve as this portal to seeing something in quite a different way, that I find most exciting about it.

RT Very, very briefly, the commonalities and the overlapping have been very exciting, because when we made the first video, of course, we didn't know what each other was going to say – except I did have an idea of Bettina's topic because I'd heard her speak about on aspects of the topic. And so, when I made my little discovery about proportions possibly being literally to do with moving emotions – which happened literally one day when I was relaxing and sitting reading a new translation of Werckmeister – I got in touch with Bettina straight away and said, 'Am I treading on your toes?' She said, 'No! Continue, go with it, run with it'. And as I was preparing for this, and because I knew Fred Fehleisen's musical examples from *Messiah*, because I'd seen his presentation two weeks ago, I was stunned as I realised, 'Oh my goodness me, what am I looking at? I'm looking at a demonstration'. And yesterday, Fred said something else to me in a chat, and when I was having supper late last night, I got out the score of *Messiah*, and found 'The Lord gave the Word' (HWV 56, Part 2, no. 33), and thought, 'Exactly!' And then this afternoon, Fred told me about the final movement of BWV 198/10 with its unison passage to a text honouring the deceased Queen, 'Sie ist der Tugend Eigenthum, der Unterthanen Lust und Ruhm' ('She is the property of virtue, the

delight and fame of her subjects'). So, what I'm excited about is actually collaborating, that is, exchanging ideas to come up with ideas that none of us as individuals would know alone. That's the first thing. I think the overlapping is fantastic because it saves us a lot of time.

Where will it go? Well, I have the disadvantage here because I work on a topic which gets everybody very hot under the collar, which is numbers. Traditionally people get very, very cross with me. But it's quite ridiculous, because it's all there, and I would like to see a freedom with this because, when the science is there, and when all the history is pieced together, one should be bold. I would come straight in and say to John, 'let's talk about Rameau and Rousseau; about the perfect sculpture that was created; about the arguments between Rousseau and Rameau; about classicism and Pythagorean numbers; and ask why did they choose that particular story; what was happening, and why then was dance the first thing she did when her perfect body started to move; why was the movement something in which you have to count; it's a body, it's counting, but it's also fundamental to existence. And, as you know, Pygmalion was the 'god' figure as it were; he created the perfect human female image. So, you've got all these resonances coming in that we don't have to be musicians to know. We have to be old-fashioned scholars who know classical stories and who dare to speak about these things, but also bring to them specialist knowledge. So, there is a lot of overlapping, and there's still a long way to go.

JB One crossover, I think, with what Ruth was saying, of course, is this notion of proportions and the dance steps. The whole notion of the length of dances is very much wound into that, too. But, also, the notion of unconscious calculating is one that's particularly topical in the 1720s because that's the period when Rameau excitedly took on board Joseph Sauveur's advances in understanding on the overtone series²⁶ – particularly the notion that one is hearing some form of harmony even when listening to a single note. We are unconscious, in other words, of that sort of harmony – that's particularly apt, I think, for this period. But I think if there's any one direction, I, personally, am always thinking and going with this notion of accumulated experience, both in terms of one's lifetime but also in terms of one's listening experience. Because this is something that links us to the people of Bach's age, even if our experiences are entirely different; the way in which they might impinge on one another could be quite similar – we'll never know for sure. But I think that's one of the things that both makes this music historically interesting in its own time, but also opens up the potential for understanding and using it in our current situation because composers of this time – and I suggest Bach in particular – had a sense of how we inhere in time, and how we mould our consciousness. And it's interesting, I think, that Handel does the same thing as well but in a very different way, a more syntagmatic way, I would say, and Rameau likewise. I think those three figures, you know, do it in three very different ways. But that's something that really, really thrills me in a way

because it does give the potential for a leap from the dead past to the live present.

DI I'm very sad to say it's almost time for this session to come to a close.

I'd like to add one more thing about proportions just in response to something that Ruth said – which is that, in my view coming from a performance studies perspective as well, you couldn't be an instrumentalist or a composer or even a singer in the early modern period without always being aware of proportions – the Pythagorean proportions and the consonances added by Zarlino in the *senario* – because on your instruments the strings would have the diameters according to the proportion of three is to two for a perfect fifth, for instance, or whatever else they are.²⁷ And, so, these proportions were very much at the top of everyone's head. When I put a new string on my violin, I'm always measuring it to make sure that it's fitting the proportion of three is to two. But that's a whole other area of lived experience. And I think what's come out of this session very much today is corporeality and the emotions, and the corporeality of music in this period.

I'd like to thank all the three speakers again, and also the entire assembly here, everyone participating, and the Bach Network.

Notes

- ¹ The spelling has been standardised following British English norms.
- ² For the full conference schedule, see <https://birminghambaroque2021.weebly.com/schedule.html>.
- ³ This is a reference to the discussion recorded in June 2020 and published as *Discussing Bach I* (2020), <https://bachnetwork.org/discussing-bach/db1/>.
- ⁴ Daniel R. Melamed, *Hearing Bach's Passions* (Oxford, New York: Oxford University Press, 2005), 13–14.
- ⁵ Patrik N. Juslin and Petri Laukka, 'Expression, Perception, and Induction of Musical Emotions: A Review and a Questionnaire Study of Everyday Listening', *Journal of New Music Research* 33, no. 3 (2004), 221.
- ⁶ Albert Schweitzer, *J. S. Bach*, transl. Ernest Newman (Leipzig: Breitkopf & Härtel, 1911), vol. 2, 227.
- ⁷ J. S. Bach, *St Matthew Passion*, Netherlands Bach Society, "All of Bach Project" recording project, dir. Jos van Veldhoven, April 2014, <https://www.youtube.com/watch?v=WXPXJ5kcjk>.
- ⁸ John Downname, *Spiritual physicke to cure the diseases of the soul, arising from superfluitie of choller* (London: Simson, 1600), 52.
- ⁹ Johann Jacob Schmidt, *Biblischer Medicus* (Züllichau: Dendeler, 1743), 82: "da die Galle erhitzt und zum überlaufen bewegt wird, warum der Puls so sehr sich auftreibe, daß daß Blut endlich durch Mund, Nase, Ohren, die Mutter, oder auch zu den Wunden heraus ja zuweilen gar die Seele aus dem Leibe fahre".
- ¹⁰ J. S. Bach, *St Matthew Passion*, Rundfunkchor Leipzig, Staatskapelle Dresden, dir. Peter Schreier, Philips CD 4208482, 1987, <https://www.youtube.com/watch?v=3Vzz2L6A-68>.
- ¹¹ Schmidt, *Biblischer Medicus*, 80–81: "Also der arme Leib mit seinen festen und flüßigen Theilen zwischen zweyen End-Puncten, so zu reden, hin und her ballotirt oder geworfen wird."
- ¹² J. S. Bach, *St Matthew Passion*, Netherlands Bach Society, "All of Bach Project" recording project, dir. Jos van Veldhoven, April 2014, <https://www.youtube.com/watch?v=WXPXJ5kcjk>.
- ¹³ Excerpt from a letter to Christian Goldbach, dated 17 April 1712; see also <http://www.leibniz-translations.com/goldbach1712.htm>.
- ¹⁴ Ernst Chladni, *Die Akustik* (Leipzig: Breikopf & Härtel, 1802), 292, §244.

- ¹⁵ J. G. von Herder, *Kalligone*, Part 2, Chapter 4, 'Von Musik' (1800), 154.
- ¹⁶ Andreas Werckmeister, *Musicalische Paradoxal-Discourse* (Quedlinburg: Theodor Phil. Calvisius, 1707), 24. English translation adapted from *Andreas Werckmeister's Musicalische Paradoxal-Discourse*, translated and with commentary by Dietrich Bartel (Lanham, Maryland: Lexington Books, 2018), 70.
- ¹⁷ *Gradus ad Parnassum oder Anführung zur Regelmäßigen Musicalischen Composition... von Johann Joseph Fux... Aus dem Lateinischen ins Teutsche übersetzt, mit nöthigen und nützlichen Anmerckungen versehen und herausgegeben von Lorenz Mizlern* (Leipzig: im Mizlerischen Buchverlag, 1742), 35.
- ¹⁸ *Ibid.*
- ¹⁹ Christoph Raupach, *Veritophili. Deutliche Beweis-Gründe... Samt einer Vorrede herausgegeben von Mattheson* (Hamburg: bey sel. Benjamin Schillers Erben im Dohm, 1717), Chapter 5, 28. Johann Mattheson published this as a 56-page appendix to the late Friedrich Erhardt Niedt's *Musicalische Handleitung* (Hamburg: Auff Kosten des Autoris und bey Benjamin Schillern im Dohm, 1706). The title page for the original Chapter 5 by Raupach reads 'Von den unterschiedlichen kräftigen Würckungen der Music im Gemühte des Menschen' ('About the different powerful effects of music on the human mind'). The title page for the original Chapter 6 reads 'Von dem Nutzen der Music in leiblichen Kranckheiten' ('About the benefit of music in physical illnesses'). In 1847 – after 130 years – Chapters 5 and 6 of Raupach's *Deutliche Beweis-Gründe* were reprinted in an anthology compiled by Johann Scheible, *Der Schatzgräber in den literarischen und bildlichen Seltenheiten, Sonderbarkeiten etc hauptsächlich des deutschen Mittelalters*, Part 2 (Stuttgart: Verlag des Herausgebers, 1847), 111–138. However, Niedt, and not Raupach or Mattheson, was erroneously given as the author of these two chapters.
- ²⁰ Johann Mattheson, *Kern Melodischer Wissenschaft* (Hamburg: Christian Herold[d]t, 1737), 128; and *Der Vollkommene Capellmeister* (Hamburg: Christian Herold[t], 1739), 235. Cited in Ruth Tatlow, *Bach's Numbers: Compositional Proportion and Significance* (Cambridge: Cambridge University Press, 2015), 106.
- ²¹ Fred Fehleisen, 'Becoming the Kingdom of Our Lord, and of His Christ: Beginnings, Endings, and the Interaction of Chorale Phrases Throughout', paper presented online at the 19th Biennial International Conference on Baroque Music, 15 July 2021, University of Birmingham. The movement numbers to *Messiah* correspond to those used in the Halle Handel Edition, <https://www.baerenreiter.com/en/catalogue/complete-editions/handel-george-frideric/>.
- ²² G. F. Handel, *Messiah*, Dunedin Consort, dir. John Butt, Linn Records CKD 285, 2006, <https://www.dunedin-consort.org.uk/shop/recordings/handel-series/handel-messiah/>.
- ²³ J. P. Rameau, *Pigmalion*, Dunedin Consort, dir. John Butt, online premiere 6 July 2021, see <https://andrewbenilsonwilson.org/2021/07/10/rameau-pigmalion/>.
- ²⁴ J. S. Bach, *Ich habe genug*, Cantatas 32, 82 & 106, Dunedin Consort, dir. John Butt, Linn Records CKD 672, October 2021, <https://linnrecords.com/recording-bach-ich-habe-genug-cantatas-bwv-32-82-106>.
- ²⁵ The actual cantata text is 'Heute wirst du mit mir im Paradies sein' ('Today you will be with me in paradise').
- ²⁶ J. P. Rameau, *Nouveau système de musique théorique...* (Paris: Ballard, 1726).
- ²⁷ Or diameters for pairs of strings according to the proportions for other intervals, such as a perfect fourth, major third, and so on. See Oliver Webber, *Rethinking Gut Strings: A Guide for Players of Baroque Instruments* (Huntingdon: King's Music, 2006).

