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# **A New Approach to Expressivity via Modern Neurophysiology and Renaissance Didactic Methods**

*Anne Smith*

Through my recent work on one of the pioneers of early music, both in Holland and Switzerland, Ina Lohr, I have become only too aware of how our own culture affects what we desire to hear, and thus our musical products. In turn, this has stimulated me to reflect on how the current understanding of the processes of expressive communication can be combined with historical didactic methods to reach new solutions, solutions in which both the methods of reaching today's audiences and the historical sources can be taken into consideration.

The catalyst for this article was a question in a 16th-century performance practice class, namely of how one took the affect of the individual intervals as described in the treatises – for example that major thirds and sixths were considered to be harsh and minor thirds and sixths soft – and applied this information not only to the notated musical work, but also to the diminutions that one sang or played upon it. The text, and thus also the singer, are central in regard to this question, as it is through the text that the affect most obviously becomes manifest to the performer. More specifically, the article presents the thoughts behind a workshop I gave at the Schola Cantorum Basiliensis as a forerunner to the symposium, as well as some of the discoveries made there. The short references made to Palestrina's *Pulchra es* were presented live at the symposium, together with a concert thereafter, which brought my ideas concerning text and expressivity through the means of the voice and instrument vividly to life. Unfortunately, however, in this article we are limited to the written word.

Further – as I was forced to acknowledge that there was no way I could treat this topic comprehensively within the bounds of this article – I have chosen to restrict myself to two basic interconnected issues of particular interest to me at the moment. I will begin with material on how humans perceive affects or emotions from the point of view of neurophysiology. This will be followed by a discussion of some of the differences in our musical training that separate the music-making of today from that of the 16th and other earlier centuries: the arts of memory and rhetoric, with the associated subjects of elocution and declamation. In doing so, I hope to make a case of how we might make use of both elements in approaching not only the question of the expression of affect in diminutions today, but also as part of a more general approach to early music.

## Aspects of Neurophysiological Research on the Perception of Affect

Neurophysiological research is extraordinarily stimulating because it begins to provide answers as to the means by which we are emotionally affected by music. For example, wouldn't it be nice to know why the three-notes of Gershwin's *Summertime*, immediately conjure up a picture of a warm, lazy summer day down South, whereas those of Palestrina's *Pulchra es* leave us relatively cold, even if they mean "You are beautiful!". One began investigating the answers to such questions by means of research on macaque monkeys, which was then taken to a new level by experiments with humans. According to Katie Overy and Istvan Molnar-Szakacs, it has been shown that primates have a neural system which implements a resonance mechanism,

allowing for shared representations to be established between interacting agents. At the neural level, this resonance mechanism in essence 'mirrors' one agent to another, allowing the observer to represent the actions of another using the same neural system as s/he uses for executing those actions.<sup>1</sup>

What this says in simpler terms, is that what we observe in other people, whether by sight or by hearing, is recreated by this neural system within our own respective mechanism, thereby allowing us to directly sense or share what we perceived in the other within our own homologous system. Overy and Molnar-Szakacs, who have examined these mechanisms in particular in regard to music, go on to say that

the theory holds that at a basic, unconscious, and automatic level, understanding the actions, intentions, and emotions of another person does not require that we explicitly think about them – our brain has a built-in mechanism for feeling them as we feel our own intentions, actions, and emotions. This representational equivalence between perception and action at the neural level may provide the basis for shared representations between self and other, enabling social communication and intersubjectivity.<sup>2</sup>

Thus for musical expressivity to cross from a singer to a listener, for example, some cultural link between the two must exist so that the affect which is aroused by the vocalist's inflections can be understood on the other side, we have to know how to interpret the resonances we experience through the mirror neuron system. As the musicologist Daniel Leech-Wilkinson writes:

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<sup>1</sup> Katie Overy and Istvan Molnar-Szakacs, "Being Together in Time: Musical Experience and the Mirror Neuron System", in: *Music Perception: An Interdisciplinary Journal* 26/5 (2009), 489–504: 490.

<sup>2</sup> Ibid., 491.

All that is required for us to experience a deeper sense of pain is for there to be some reference to, not a complete model of, an expressive vocal gesture we recognize from life, to which we respond automatically through empathy, contagion, or simply experience. [...] The promiscuity with which the brain makes connections between incoming sounds and sounds known already ensures that meanings are there to be found in profusion. [...] The details are a negotiation between the sounds and our individual minds, but mechanisms are not hard to suggest, given the wealth of research in recent years on emotional communication.<sup>3</sup>

This, as a consequence, means that things that are most familiar to us set off the most mirror neurons, will have the greatest emotional impact upon us.

## Expressivity in 16th-Century Music

Musicians performing 16th-century music today are faced with many seemingly irresolvable conflicts in regard to expressivity when performing this repertoire. First of all, as we have seen above, because of how our minds work, we can only recognize the emotions to which we have received exposure through our own personal experience within our own culture. Secondly, due to reasons that have more to do with the general cultural shift towards an appreciation of objectivity in the 20th century than anything else, polyphony came to be seen as the acme of abstract beauty with an inherent imperative for rigorous purity.<sup>4</sup> It is only in recent years that recognition is growing that this is in contradiction to what one reads in the sources of the time. Luigi Zenobi (1547/48–after 1602) was perhaps the most eloquent of those writing on the subject when he claimed that a soprano

must know how to sing the piece in its simple form, that is, without any *passaggio*, but only with grace, *trillo*, *tremolo*, *ondeggianmento*, and *esclamazione*; he must understand the meaning of the words, whether they be secular or spiritual; and where the text speaks of flying, trembling, weeping, laughing, leaping, shouting, falsehood, and similar things, he must know how to accompany them with the voice; he must use echo passages, now immediate, now separated; he must know how at times to begin loudly and then to let the voice die gradually; and at times to begin, or end, softly and then enliven it gradually; he must know how to improvise *passaggi* in skips, in syncopation, and in *sesquialtera*; he

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3 Daniel Leech-Wilkinson, “The Emotional Power of Musical Performance”, in: *The Emotional Power of Music: Multidisciplinary Perspectives on Musical Arousal, Expression, and Social Control*, eds. Tom Cochrane, Bernardino Fantini, and Klaus R. Scherer, Oxford: Oxford University Press 2013, 47.

4 Anne Smith, “The Development of the *Jugendmusikbewegung*, its Music Aesthetic and its Influence on the Performance Practice of Early Music”, in: *Gross Geigen um 1500 · Orazio Michi und die Harfe um 1600*, ed. Martina Papiro, Basel: Schwabe Verlag 2020 (*Basler Beiträge zur historischen Musikpraxis* 39), 465–508.

must know thoroughly which places demand them; he must start with discrimination and finish in time with those who sing or play with him; he must sing in one style in church, in another one in the chamber, and in a third one in the open air, whether it be in daytime or at night; he must perform a motet in one manner, a villanella in another, a lamentation differently from a cheerful song, and a mass in another style than a falsobordone, an air differently again; he must bring to each of these pieces a motif, *passaggi*, and a style of its own, so that the artfulness and the understanding of the singer may become manifest.<sup>5</sup>

I know of hardly anyone today who fulfils all these criteria, i.e. none of us today have any familiarity with this manner of singing. To complicate matters, instrumentalists are told in the treatises that they should imitate singers in this regard, but one only rarely hears vocalists today who add even the obligatory graces – to say nothing of passage-work – to their performances of 16th-century music.<sup>6</sup> In jazz, to be sure, it is a common place. We only have to think of such greats as Ella Fitzgerald, both for her renditions of slow ballads and her scat singing. It is from recordings of such singers that we have an immediate sense of what *Summertime* might sound like, what sort of gracing would be appropriate. In addition, the sources for Renaissance diminutions are focused on learning how to improvise them, offering patterns for each interval, and then linking them together for entire pieces, but they say nothing of how they are to be performed, beyond the fact that they should be played fluidly, in a cantabile manner, as a good singer would perform them. Furthermore, as these diminutions are the only technically difficult aspects of this repertory, they are often perceived as mere exercises and played just as mechanically. To get beyond this, in my opin-

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5 “Deve saper cantare il canto schietto, cioè senza passo alcuno ma solo con gratia, trillo, tremolo, ondeggiamento, et esclamatione. Deve conoscer la forza delle parole, o temporali, o spirituali, ch’elle si siano; e dove si parla di volare, di tremare, di pianger, di ridere, di saltare, di gridare, di falso e cose simili, deve sapere accompagnarle con la voce. Deve haver Echi passi hor continui et hora separati. Deve tall’hora saper cominciare con voce gagliarda, e lasciarla a poco a poco morire; e tall’hora cominciare, o finire con voce piana, et a poco a poco avviarla; deve saper passeggiare a salti, a contratempi, et a sesquialtere, deve conoscere i luoghi molto bene che ricercano i passaggi, deve partirsi con giuditio, e terminare a tempo con chi canta seco, o suona, deve altramente cantare in chiesa, altramente in Camera, altramente all’aria, sì di giorno come di notte; altramente un mottetto, altramente una Villanella, altramente una lamentatione, altramente un canto allegro, altramente una Messa, altramente un falso bordone, altramente un aria, et haver a ciascuna di dette cose motivo, passaggi, e stile differenti di modo, che si conosca l’artificio, et il saper del Cantore”. Bonnie J. Blackburn and Edward Lowinsky, “Luigi Zenobi and his Letter on the Perfect Musician”, in: *Studi musicali* 22 (1993), 61–114: 84–85, in translation: 101–102.

6 This may change considerably in the coming years due to the success of the first Bovicelli Competition (Schloss Weissenbrunn, Germany) in 2020, an international singers’ competition on the diminution practices of the 16th and 17th centuries, with more than 90 entries.

ion, we need to rethink our performance of this music entirely, not only beginning with what the musicians of the time considered to be the fundamental building blocks, but also with what we know about how our organisms function, thereby seeking to create a bridge from the past to the performers and thus the audiences of today.

## Memory and Memorization

It is in this context that I decided in my 16th-century performance practice class at the Schola Cantorum Basiliensis in 2015/16 to base all our work on the art of memory, using it as a platform and a practice to discuss all other criteria. It is fair to say that all the members of the class agreed that it was a remarkable experience with quite unexpected results, perhaps because in our daily life, with all of its digital possibilities, we are relying less and less on our brains as our memory storage space and instead depending on digital clouds, with the consequence that we are losing awareness of the advantages of personal data banks. But what pop singer today would consider singing with a piece of paper in their hand? By taking their own attention away from the audience, they would no longer be communicating directly with them, but singing to a piece of paper, and thus often concerned primarily with themselves, rather than on the message they wish to communicate. That this was also perceived negatively back then is amply validated by Nicola Vicentino (1511–1577) when he wrote that

it is much more pleasing if music is sung from memory than from written parts. Take the example of preachers and orators. If they recited their sermons or orations from a script, they would lose favour and face a dissatisfied audience. For listeners are greatly moved if glances are matched with musical accents.<sup>7</sup>

What we also learned in this class is that when memorization is understood as an initial means of getting to know the piece, making it our own – rather than as a final, confining step, after we have perfected our interpretation – that it gives a hitherto unknown mental space to work with a piece of music, to continually reflect upon how we want to shape it. We truly experienced for ourselves what

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7 “& quando la Musica sarà cantata alla mente sarà molto più gratiata, che quando sarà cantata sopra le carte, & si piglierà l'esempio dalli predicatori, & da gli Oratori, che si recitassero quella predica, et quella oratione, sopra una carta scritta quelli non havriano ne gratia, ne audienza grata. perche i sguardi, con gli accenti musicali muoveno assai gli oditori quando sono insieme accompagnati”. Nicola Vicentino, *L'antica musica ridotta alla moderna prattica*, Rome: Antonio Barre 1555, fol. 88v (recte 94v); translated by Maria Rika Maniates, *Ancient Music Adapted to Modern Practice*, New Haven and London: Yale University Press (Music Theory Translation Series) 1996, 302.



Mary Carruthers meant when she wrote in her milestone work, *The Book of Memory: A Study of Memory in Medieval Culture*, that we are prejudiced against memorization because “we have been formed in a post-Romantic, post-Freudian world, in which imagination has been identified with a mental unconscious of great, even dangerous, creative power” and further that

[Medieval writers] would not have understood our separation of “memory” from “learning”. In their understanding of the matter, it was memory that made knowledge into useful experience, and memory that combined these pieces of information-become-experience into what we call “ideas”, what they were more likely to call “judgments”.<sup>8</sup>

Indeed, they would have claimed:

A work is not truly read until one has made it part of oneself – that process constitutes a necessary stage of its “textualization.” Merely running one’s eyes over the written pages is not reading at all, for the writing must be transferred into memory, from graphemes on parchment or papyrus or paper to images written in one’s brain by emotion and sense.<sup>9</sup>

Note here, too, that these words were not only written in the brain by “emotion”, but also by “sense”. By ingesting them one assimilated them, made them one’s own, connected specific ideas, affects, and sounds with them, became familiar with them. In sum, memorization was an integral part of reading, of comprehending the words on the page on many levels, as well as the cultivation of the ability to make use of that understanding in one’s own thinking and action. *Memoria* was also one of the five parts of rhetorical training, understood not only as a preparation for a specific performance, but also as part of the process of building up a treasure house of quotations, devices, that one could call on at will, complete with the knowledge of the responses they would evoke in others. And as such, it formed the basis of a successful declamatory performance with everything that entailed. In an oral society being able to remember a text would have a far higher status, as one would not be able to go online and look things up. Therefore, a good orator would desire to call upon all resonance that our mirror neurons could possibly conjure up for us.

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<sup>8</sup> Mary Carruthers, *The Book of Memory: A Study of Memory in Medieval Culture*, Cambridge: Cambridge University Press 1990, 1. This book is an incredible storehouse of information and, as such, is the source of most of what I write about memory and memorization here.

<sup>9</sup> *Ibid.*, 10.

## Declamation as a Tool of Communication

Once again, however, we must acknowledge that those declamatory performances which are generally considered to be successful today, are quite different from those of only a hundred years ago. We only have to listen to recordings of the recitation of some of the more famous actors from the beginning of the twentieth century to immediately be struck by their almost melodramatic presentation, at least by today's standards.<sup>10</sup> Indeed, they almost seem to bear greater stylistic similarity with the descriptions of good rhetorical performances that we have from the 16th century. For example, Todd Borderding, in his article on rhetoric in the pulpit in 16th-century Spain, cites the following passage from Luís de Granada's (1504–1588) popular *Ecclesiasticae rhetoricae* of 1578, as being the recommended manner for “pronouncing” Psalm 49 (50) in which the psalm text is printed in italics and the instructions in Roman type:

*But to the wicked God says: “What right have you to recite my laws, or take my covenant on your lips?”* These two questions must be pronounced in a tone of voice of one who reprehends. The subsequent verse must be pronounced with a different inflection. *You hate my instruction, and cast my words behind you! [...] You speak continually against your brother, and you slander your own mother's son!* Each phrase in this passage must be pronounced in a distinct tone of voice, and each sin distinguished by a pause. *These things you have done and I have kept silent.* Here use the voice of one who is in wonder about how he kept his silence, and pause a little after the word “silent”. This is needed to emphasize the affect of wonder. *You thought I was altogether like you.* Here convey greater acrimony and indignation, and even more for that which follows: *but I will rebuke you and accuse you to your face!* This must be pronounced with a threatening voice and gesture. Then follows another, different manner of pronunciation: *Consider this, you who forget God, or I will tear you to pieces, with none to rescue you.* This phrase must be pronounced in a vocal range and tempestuous tone that conveys the threat and what is at risk. With this example one can easily see what great variety in pronunciation must be used in just these few little verses.<sup>11</sup>

<sup>10</sup> A selection thereof may be found on the CD: Great Historical Shakespeare Recordings, NAXOS AudioBooks Ltd. 2000.

<sup>11</sup> “De algunos ejemplos tomados de las sagradas letras, en cuya pronunciancion pueden ejercitarse los rudos en este oficio” [some examples from sacred scriptures, whose pronunciancion may instruct beginners in this office]. “Dijo Dios al pecador, ‘¿cómo tienes atrevimiento para predicar á otros, y tomar mis palabras en tu boca?’ Estas dos preguntas han de pronunciarse á tono de quien reprehende y se admira. Lo que despues añade, se ha de pronunciar con otra inflexion de voz: ‘¡Tú aborreciste la diciplina, y echaste al trezado mis palabras!’ Y lo demas que se sigue hasta aquello ‘¡Y ponias lazos para hacer caer al hijo de tu madre!’ Todos estos miembros han de ser pronunciados con un propio tenor y viveza de voz, y han de distinguirse con sus intervalos [...]. Síguese despues: ‘¡Estas cosas hiciste tú, y yo callé!’ Esta voz es de uno que se admira, y como que se pasma de tan largo silencio. Y por eso en este lugar debe parar un poquito la pronunciancion; pues así lo requiere la razon de admiracion. Pero lo que sigue



This variety of vocal timbres, use of dynamics, range, and tempo, and open display of emotion goes far beyond what we would expect to hear from a pulpit today, far beyond what we are taught in public speaking courses. If we are going to be able to integrate aspects of this into performances today, musicians will have to experiment, making these ideas sufficiently their own that they may be imbued with an intense expressivity understood by today's audiences. We must needs make the passions belong to our world if we wish to affect our listeners. This may require the performer to translate the original text into his own language, assigning affective meaning and noting the psycho-physical state associated with each phrase. It is far too easy to simply go for mere superficial beauty if we are confronted with a text in Latin, a "dead" language.

And it is this affective meaning that then determines a phrase's impact on the audience, with or without diminutions. It does not matter whether it is "pulchra es", the words whispered to a lover, or "lasciatemi morire", the woeful lament of lost hope. In my own work I have been surprised by the difference it makes when I focus my attention on my psycho-physical reactions towards the line's affect while playing such music on the flute. I am convinced that a necessary part of the entire process is not only being aware of the text and its pronunciation and accentuation, not only knowing what the words mean, but making it so much your own that you can infuse it with the emotion you would feel today if you were in a similar situation.

## Embodiment as an Attribute of Expression

But we need not rely entirely on our emotional language, as performers we can also extend it into our body, as the same mirror neurons are also activated by our sight, so that when we see someone who oozes sadness by means of the expression of his entire organism – the body demonstrating a lacklusteress, a

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despues: '¡Pensate inicualmente que seré semejante á tí!' manifesta mayor acrimonia é indignacion del que habla, y mayor aun lo que luego añade: '¡Yo te argüiré y te pondré á tí mismo delante de tu cara!' porque conviene pronunciarse con gesto y voz amenazadora. Síguese despues otra manera de pronunciar muy diferente de estas: 'Entended esto, los que os olvidais de Dios, no sea que algun día os arrebate y no haya quien os libre;' porque esta sentencia ha de pronunciarse con la voz de quien cuerda y tempestivamente avisa y aparta del riesgo que amenaza. Con este ejemplo pues, notoriamente se ve cuán varia manera de pronunciar deba usarse en estos pocos versillos". Luís de Granada, *Rhetoricae ecclesiasticae* (1578), translated as *Retórica eclesiastica* by José Joaquín de Mora in *Obras des V.P.M. Fray Luís de Granada* (Madrid: Imprenta de M. Rivadeneyra 1848), 628 from which it is cited in Todd Borderging, "Preachers, 'Pronunciatio', and Music: Hearing Rhetoric in Renaissance Sacred Polyphony", in: *Music Quarterly* 82 (1998), 593.

sense of drooping, the face characterized by eyebrows that are pulling down – we ourselves truly resonate on a physical level with that person. This muscular language – although the specifics may be culturally dependent – is also universal, something to which all normal individuals react. This, too, was recognized and in part codified in the past, as we know from Charles Le Brun's depictions of the Passions, from the manuals for gesture.<sup>12</sup> Indeed, this use of the body for expressive purposes was expected of a good musician in the Renaissance, whether a singer or an instrumentalist, as Silvestro Ganassi made clear to ongoing viol players in his *Regola Rubertina* in 1542:

Your motions should be proportioned to the music and to the word setting. Whenever the music is set to words, the limbs of one's body must move accordingly. Furthermore, there should be appropriate movements of one's eyes, hair, mouth and chin; the neck should be inclined more or less toward the shoulders according to the mood suggested by the words.<sup>13</sup>

This, too, is not an integral part of what musicians are taught today, although it is part of what we react to in a stellar performance.

What conclusions may be drawn from all of this in regard to the transfer of affect from text to performance? I think we must first acknowledge that the 20th century, with its desire for objectivity on all levels of existence, made a complete break with older forms of expressive performance. This was particularly pronounced with 16th-century music in that its proponents often sought a kind of sublimated moral purity in an objective performance. We thus have no documented information, apart from such remarks as those of Ganassi, about what expressivity meant to a Renaissance man or woman. Therefore, as Daniel Leech-Wilkinson wrote,

in seeking to understand the principles that underlie this mapping from sound to emotional engagement we need to focus less on musicological facts and much more on bodily response.<sup>14</sup>

<sup>12</sup> Charles Le Brun, *Expressions des passions de l'ame*, Paris: Jean Audran 1727, <https://alexandrin.org/static/pdf/leBrunPassions.pdf> (15 July 2020).

<sup>13</sup> “il movere suo sera proportionato alla musica ben formata su le parole, dove se la musica sera mistevole per parole tal ancora gli membri fara la sua moventia conforme, e l'ochio come principal in giustificar la conforme moventia sera compagnato dal peio [pelo] e bocca, e mento della faccia & il collo appressatti alla spalla piu e manco secondo il bisogno a simile suggietto formato a tal parole”. Silvestro Ganassi, *Regola Rubertina*, Venice: the author 1542, facsimile, Bologna: Forni Editore 1970, chap. 2; translation by Richard D. Bodig, “Ganassi's *Regola Rubertina*”, in: *Journal of the Viola Da Gamba Society of America* 18 (1981), 18.

<sup>14</sup> Daniel Leech-Wilkinson, “The Emotional Power of Musical Performance” (see n. 3), 50.

Indeed, we must seek out the means to make this music expressive on our own terms, to meet our own needs – and this is where I find the basics that musicians were taught at the time so useful – in order to awaken the mirror neurons in our own audiences. For once again to quote Leech-Wilkinson:

Music is above all a negotiation between sound and the contents and mechanisms of the mind, and so it is within that space that the study of music's effects will be most illuminating.<sup>15</sup>

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15 Ibid., 52.