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Annual Conference of the Gesellschaft für Musikforschung, Hochschule für Musik und Tanz Köln & Universität zu Köln, 11 to 14 September 2024

Hauptsymposium 1: „Music Experience – Transdisciplinary approaches between historical and systematic methods“

Historical and systematic musicology have grown very far apart over the past decades, even though they share many common interests. Based on the conviction that the combination of quantitative and qualitative methods or the combination of hermeneutic and psychological models can be extremely fruitful, we would like to present and discuss approaches that integrate historical and systematic perspectives. We will focus on research projects that attempt to describe and explain musical experience from the past and present.

Symposium Organisers: Prof. Dr. Frank Hentschel & Prof. Dr. Hauke Egermann, University of Cologne

Date: Thursday, 12 September 2024

Time: 9:00 to 16:00

Location: HS VIII, Hauptgebäude, Universität zu Köln (UzK), Albertus-Magnus-Platz, 50923 Köln

Session 1: 9:00 - 10:30

Presentation 1: 9:00

The Didone Project. Between musicology, music analysis, and data science

Prof. Dr. Álvaro Torrente, Dr. Carlos Vaquero and Dr. Ana Llorens, Complutense University of Madrid, ES

In this lecture we present the main objectives and tasks of the research project ‘DIDONE: The Sources of Absolute Music’, Funded with an Advanced Grant from the European Research Council. We discuss the diverse fields that converge in it, from musical edition and music history to analysis and statistics. In this regard

transdisciplinary and teamwork are particularly relevant, as it converts DIDONE into a true musicological laboratory.

More specifically, we discuss our two main lines of research and, importantly, their convergences. Historical methods are applied to the edition and emotional labelling of a corpus of 3,000 digital scores that we are building on arias from five *drammi per musica* by Pietro Metastasio. This corpus is in turn used in the systematic tasks, which spread along different sub-projects. First, we explore the theoretical relation between the emotions, as expressed in the aria texts, and the composers' use of specific large-level features, especially keys, throughout the 18th century. Importantly, we confront the empirical data with the theoretical tradition since the 17th century. To that aim, we have compiled a dataset with tempo, key, and metre data from more than 10,000 pieces, which are analysed computationally at the intersection between musicology, music theory, and statistics. Secondly, we have designed the Python library *musif* to extract over 10,000 features from each piece. These data are obtained at the score, timbre, and part level, and are used as the basis for the statistical analysis and artificial intelligence methods that we are applying in various supervised classification problems that will help us identify: 1) the ways in which composers approached the vocal writing for soprano types (female vs. castrati) differently; 2) the musical traits that made this apparently homogenous repertoire a fruitful field for the expression of compositional individuality; and 3) the musical strategies that composers employed to express the emotions contained in the libretti and which codified into a tradition that eventually permeated later instrumental repertoires.

Presentation 2: 9:45

Towards transdisciplinarity in music and emotion research: Disentangling the Musicology - Psychology - Computer Science triangle

Prof. Dr. Emilia Parada Cabaleiro, Hochschule für Musik Nürnberg

The relationship between music and emotions is an object of study in several disciplines, from more historico-philosophical and anthropological ones, such as musicology and ethnomusicology, to others that are traditionally more empirical and technological, such as psychology and computer science. Despite this broad multidisciplinary spectrum, interdisciplinary, and particularly transdisciplinary, collaborations remain the exception rather than the rule. This hinders the cohesive development of the digital humanities and prevents a holistic understanding of musical emotions themselves.

Already in 1970, in his contribution "The epistemology of interdisciplinary relationships" (University of Nice, France), Jean Piaget contemplated embracing transdisciplinarity as a higher stage of research. The current state of the digital humanities, formerly referred

to as humanities computing, indicates not only a discipline's terminological shift but a transformation of the underlying rhetoric—from a focus on interdisciplinary approaches towards future endeavours of transdisciplinarity—which after half a century resonates Piaget's ideas while bringing up questions about existing boundaries between the concerned disciplines and an eventual need for their redefinition.

By approaching music and emotions from the perspective of Musicology, Psychology, and Computer Science (as well as their intersections), this contribution aims to shed light on the fuzziness surrounding the boundaries between disciplines in the field of music and emotion research. Specifically, a transdisciplinary methodology is proposed that pursues a more integrative understanding of musical emotions by incorporating approaches from the aforementioned disciplines. Challenges and opportunities of the proposed method are illustrated through an exploratory data-driven case study investigating the relationship between perceived musical emotions (ascribed to eight Bach chorales by 26 listeners) and multi-modal musical attributes (i.e., machine-based linguistic, symbolic, and acoustic features, automatically extracted from lyrics, music notation, and audio recordings). Presented as a proof-of-concept, this work aims to encourage a better mutual understanding amongst the different constellations involved in music and emotions research.

10:30 – 11:00 coffee break

Session 2: 11:00-12:30

Presentation 3: 11:00

Cultural History as an Interdisciplinary Project: The Concert Life of Viennese Classics

Prof. Dr. Stefan Weinzierl, Technische Universität Berlin

The musical life of a given epoch, like any cultural practice, develops under the influence of economic, social, political, artistic-aesthetic, biographical and material factors. With regard to the repertoire of methods that has developed in the respective disciplines, the separation of "systematic" and "historical" approaches as practised in music research today appears to the author to be neither contemporary nor sufficiently differentiated; on the other hand, it often prevents productive cooperation between methods and people already at the institutional level.

The example of a current research project on "Concert Life in Vienna 1780-1830: Performances, Venues and Repertoires" is intended to illustrate the fruitfulness of a multidisciplinary approach. The project combines a music-historical analysis of hitherto unexplored sources of musical performances with an architectural and acoustic

analysis of the concert venues that formed the social, acoustic and performance-practical framework of these performances, as well as an analysis of the musical-aesthetic reception of the performances and their performance conditions using methods of qualitative social research. The results of the project will be incorporated into a database that links individuals, institutions, works and places with the Common Authority File (GND), which provides topographical access to music-historical events via historical maps and illustrates the influence of the respective performance spaces with their acoustic and performance conditions through 3D sound and image material. The result is an interdisciplinary digital platform that can be used for a wide range of issues beyond the scope of the project.

For musicology, which in contrast to other disciplines is defined less by its repertoire of methods than by its subject matter, and which has borrowed its methods to a large extent from the respective specialised disciplines, a combination of different approaches seems not only indispensable: it may even offer a field in which the interlocking of different approaches can have a methodologically innovative effect on cultural-historical research as a whole.

Presentation 4: 11:45

Sacred Sound – Sacred Space: Virtual acoustic-visual reconstruction of sacred spaces of the Middle Ages

Prof. Dr. Stefan Morent, Universität Tübingen

The project "Sacred Sound – Sacred Space" at the University of Tübingen (in cooperation with University of Aachen) investigates the interactions between sacred architecture and sacred sound and which relationships between sacred spatial concepts and their socio-cultural construction and religious experience and the development of liturgical forms can be discerned.

The underlying thesis is that Gregorian chant was embedded in a complex network of relations between movement in the sacred space within the liturgy and the acoustic conditions of the space. Special methodological and technical challenges arise when the corresponding sacred spaces no longer exist or exist only in part. Concerning the connection between musical-liturgical tradition, notation, performance practice and sound and space in monastic reform movements of the Middle Ages, this applies to numerous church rooms that are central to the investigation.

New possibilities arise from the virtual reconstruction of the architecture as well as its acoustics. The Cistercian monastery church of Maulbronn and the former monastery church Cluny III serve as a pilot project: recordings with singers in the real church space are compared to recordings in its virtually acoustic-visual reconstructed model.

In August 2023 recordings with ensemble Ordo Virtutum of the Offices for St. Gall and St. Othmar took place in the reconstructed acoustic of the 9th century Gozbert church of the of St. Gall monastery. Research questions are to what extent relationships can be established between room acoustics, liturgical and theological norms (laid down, for example, in *Consuetudines* or *Libri Ordinarii*) of (Western) monastic communities and their liturgical singing (handed down in corresponding sources) and the perception of liturgical singing in relation to performance spaces.

The talk will present the project as work-in-progress at the crossroad of historical and systematic approaches and discuss its challenges, limitations and next steps.

12:30 – 14:00 lunch break

Session 3: 14:00 - 16:00

Presentation 5: 14:00

Mixed-method approaches to studying historical music perception

Prof. Dr. Anja-Xiaoxing Cui, Dr. Isabella Czedik-Eysenberg, Universität Wien

Prof. Dr. Frank Hentschel, Universität zu Köln

A comprehensive understanding of music perception includes not only the understanding of the ways in which personality or previous experience influence how we perceive music, but also how our cultural background influences our music perception. Others have argued, that the influence of cultural background cannot be solely approximated by studying a phenomenon in another culture, as has been productively done in recent years, but should also include the exploration of this phenomenon in the past (Muthukrishna et al., 2021). Prima facie one cannot conduct music listening studies on how 19th century listeners reacted to music with the extent of control desired by experimental music psychologists. In this methodological paper, we will argue that despite this lack of experimental control, the writings of 19th century listeners about their reactions to and experiences with music can be systematically described. Though quantitative descriptors such as the “average pleasantness rating” of a music excerpts cannot be computed, mixed-method tools such as semantic network analysis, multiple correspondence analysis, or fuzzy set qualitative comparative analysis can be used to systematically organize diverse listening experiences. We will sketch out how each of these methods may provide ways to categorize past listening experiences by calculating communities, dimensions, or solution terms respectively. Two problems will be discussed which arise when trying to

answer questions about which musical characteristics influenced historical music perception in this way: 1. All of these methods require enough historical material referring to specific and identifiable music excerpts and the extraction of relevant codes from this material. 2. The structural characteristics of these excerpts can only ever be approximated given that we do not have access to 19th century music recordings. Interdisciplinary collaboration with natural language processing and music information retrieval experts may help address these problems in the future.

Presentation 6: 14:40

Exploring musical experience from different perspectives: Theoretical Reflections and Practical Examples

Prof. Dr. Melanie Wald-Fuhrmann, Max Planck Institute for Empirical Aesthetics

At the Max Planck Institute for Empirical Aesthetics, we conduct music research within a broad interdisciplinary framework. For this, it is essential to define which approach can make what contribution to the joint research effort.

In addition to some theoretical and conceptual considerations, I will present a number of case studies from our research on music taste, live music experiences, or the perception of musical and expressive properties, to illustrate our approach and its challenges, pitfalls, and prospects.

Presentation 7: 15:20

Experiencing musical form – small to large, present to past

Prof. Dr. Clemens Wöllner, University of Music Freiburg

Form, based on structural elements such as closure, repetition, variation, and contrast, is one of the fundamental dimensions that makes sounds appear to be music. While approaches to form are traditionally seen to be in the realm of music theory and historical musicology, a number of studies in the empirical aesthetics and music psychology shed light on how listeners actually perceive form. One of the pertinent research questions addresses the temporal span to which musical forms can be processed, in contrast to following merely the surface of music in the moment. Another question relates to the investigation of small motives that are perceived as Gestalts,

which could serve as building blocks for larger musical structures and aid in memory processes while listening.

This talk attempts to combine some of the key considerations in historical and systematic approaches to form, and discusses two recent studies that analysed musical form in 19th century symphonic movements (McDonald & Wöllner, 2023), and form in musical interpretations of Chopin etudes and further pieces. The latter study draws on recent historical analyses of quotes from Chopin and his pupils to establish a fresh and more historically informed approach to his music (Rittner, 2022). In an experiment using a between-participants design, memory for variants of musical Gestalts derived from the Chopin interpretations are analysed with listeners of different degrees of familiarity. Consequences for multi-perspective approaches are discussed.

McDonald, G. & Wöllner, C. (2023). The contrast principle, typicality, and cultural longevity in 19th-century symphony slow movements: A corpus analysis. *Music & Science*, 6. <https://doi.org/10.1177/20592043231182275>

Rittner, H. (2022). Die vergessene Cantilene. Frédéric Chopins missverstandene Virtuosität. *Bärenreiter*.