

Constraints and creativity: Transforming a live artistic experience for children into Zoom

Jorge Graça ^{1,3}

Paulo M. Rodrigues ^{2,3}

Helena Rodrigues ³

Jan Sverre Knudsen ⁴

¹⁾ CESEM | NOVA – FCSH, ²⁾ INET-md | University of Aveiro, ³⁾ Companhia de Música Teatral, ⁴⁾ Oslo Metropolitan University

Abstract

This article explores how the Portuguese ensemble Companhia de Música Teatral (CMT) adapted their live performance *PaPI – Opus 8* for Zoom in response to the 2020 COVID-19 pandemic, which severely limited in-person gatherings and artistic events. Originally planned for a nationwide tour, *PaPI – Opus 8* faced major challenges due to pandemic restrictions, prompting CMT to rework the piece for an online audience. The result was a transformed version titled *PaPI – Opus 8.z*, crafted specifically for the Zoom video-conferencing platform. The article gives a detailed examination of this performance piece and its reception, providing a comprehensive

¹ jorge.graca@campus.fcsh.unl.pt

² paulo.rodrigues@musicateatral.com

³ helenarodrigues@musicateatral.com

⁴ jansk@oslomet.no

© 2024 The author(s). This is an open access article published under the CC-BY 4.0 license (<http://creativecommons.org/licenses/by/4.0/>).

understanding of the challenges and achievements associated with the adaptation of this live performance to the virtual realm.

The article explores the transformation process into an online format, examining both the losses and gains incurred. To facilitate this exploration, an introduction to CMT and a contextualization of their work is given. Subsequently, *PaPI – Opus 8* is situated within CMT's body of work, including its "sister" pieces, with a particular focus on evaluating the significance of interaction with the audience during the performance. This is followed by an overview of the pandemic-related constraints and the strategies employed by CMT to continue creating performances. To illustrate these strategies, two other CMT creations developed during quarantine are discussed as pivotal steps on the pathway from *PaPI – Opus 8* to the transformed online performance *PaPI – Opus 8.z*.

Keywords: virtual performance, COVID-19, pandemic, interactive art, Zoom adaptation, creative strategies

Introduction

During the 2020 COVID-19 pandemic, in-person activities were severely limited by constraints all over the world, including any kind of artistic performance or gathering. For many artists and creators this implied a critical dilemma: they either had to adapt their work to an online environment, or simply stop performing and wait for a resolution.

This dilemma was also faced by Companhia de Música Teatral⁵ (CMT). This Portuguese artistic company is engaged in varied and multifaceted work, ranging from intensive training to installations, to performance pieces, both small, with one performer in a "portable" format, and large, with multiple performers on a stage. Most of the company's performances are viewed as communicative experiences, involving interaction between the artists and the audiences. One of their smaller pieces, *PaPI – Opus 8*⁶, is a performance where interaction is key, especially since it is aimed at small children, families, and educators. It was designed with the aims of creating a

⁵ A literal translation would be Theatrical Music Company; a more sophisticated translation would be Scenical Music Company, evoking something akin to what George Aperghis or Mauricio Kagel would do.

⁶ This piece premiered in 2019. Its name will be explained later in the article.

shared space for exploring playfulness, communication and artistry, using music as well as dance, theatre, and visual arts. The performance was supposed to tour Portugal during 2020 but was severely impacted by the pandemic. CMT decided to adapt the piece to an online context, using the Zoom video-conference platform as a basis. A new version was developed, called *PaPI – Opus 8.z* (Companhia de Música Teatral, 2021b).

This article aims to explore the complex process of adapting an inherently live and interactive performance into a digital format using Zoom. The knowledge gained from this experience is aimed at sharing valuable insights and best practices that may inform and assist future artists who wish to create similar digital performances. Although the digital adaptation of live performances has become increasingly popular since the COVID-19 pandemic (Brooks & Patel, 2022; Gauhe, 2024), this particular piece posed unique challenges due to its highly interactive nature.

The process of transforming a theatre performance to an online format due to the pandemic has been addressed by a few scholars, who discuss both pros and cons. Karam and Naguib point out that technology becomes an integral part of the show in an interdisciplinary creative process “merging technology and theatre in a virtual space” (Karam & Naguib, 2022, p. 156). Others argue that virtual theatre fails to achieve the same interactive effect as live theatre, and that technology makes theatre a mechanical composition stripped of its original vitality and human interaction (Collins-Hughes, 2020). To successfully transpose theatrical elements into a virtual environment, CMT implemented meticulous artistic efforts and thoughtful planning to preserve as much vitality and interactivity as possible. This process underscored the unique challenges of digital performance in an era increasingly shaped by remote engagement (Singh et al., 2022).

The issues and discussion in this article are communicated from the perspective of the artist collective responsible for creating both versions of the *Opus 8* piece, making the account both personal and subjective. Nonetheless, we believe this perspective does not prevent the account from being useful for future artists intending on developing participatory digital performances. As noted by Norman Denzin, reflecting on how research in social sciences inherently transmits the point of view of the researcher, “we must create a new narrative, a narrative of passion, and commitment, a narrative which teaches others that ways of knowing are always already partial, moral and political” (Denzin, 2009, p. 154). Consequently, the

narrative of this text parallels the creative journey undertaken during the development of the digital performance, providing a reflective and introspective account that aligns with the experiences and challenges faced throughout the artistic process.

We start out by introducing and contextualizing the work of CMT, allowing the reader to better understand what was lost because of the confinement measures. Then, *PaPI – Opus 8* is situated within CMT's body of work, including its "sister" pieces, explaining in depth how interaction with an audience is critical to this kind of performance. The article proceeds by giving an overview of the constraints of the pandemic and the steps taken by CMT to keep on creating under these difficult circumstances. The authors explore two different CMT creations that were born during quarantine, which were stepping-stones on the journey between the creation of *PaPI – Opus 8*, the restrictions of quarantine, and the creation of *PaPI – Opus 8.z*. Finally, the article gives an in-depth look at what *PaPI – Opus 8.z* entails, and how it was received by the audience.

As this article is based on information collected primarily after the adaptation was carried out, the investigation did not undergo a formal ethics committee approval. However, European guidelines were adhered to in order to protect participant anonymity, except for those who provided explicit written consent for the use of their image. All images depicting audience members during the live and Zoom performances are used with permission. Data was collected through testimonies from the creative director and the artists involved, analysis of the final performance videos, examination of notes taken during the adaptation process, and informal feedback from audience members after each performance.

Companhia de Música Teatral

Depending on which CMT founder you ask, the company was either born in 1998 with its first performance *O Gato das Notas* in Expo 98 in Lisbon, or in 1999 with its formal constitution as an artistic cooperative. As described on their website:

CMT's origins can be found at the intersection of the artistic and academic paths of Helena Rodrigues and Paulo Maria Rodrigues: in 1994 Helena Rodrigues started to introduce Edwin Gordon's (2003) ideas on musical learning to Portugal, quickly establishing her own work with babies and children and contributing to the training of several professionals interested in this area. In parallel, Paulo Maria Rodrigues was developing projects

with children in London, combining music, theatre and dance.
(Companhia de Música Teatral, 2024)

Over these 25 years CMT has developed a wide range of artistic experiences, all based on their engagement in exploring the power of music in human communication and self-development. Many artists have collaborated with CMT, over a wide range of multidisciplinary creations which all have music as a starting point for incursions into diverse artistic fields. Concurrently, they maintain connections to research, education and participatory art. This focus shares similarities with *A/r/tography*, a research methodology created by Rita L. Irwin (2013). Although CMT's work predates this methodology, they both explore the liminal spaces between the roles of artist, researcher and teacher – spaces that one must occupy when researching one's own artistic practice.

A key CMT notion is the idea of “artistic-educative constellations,” defined as “a polarizing idea that clusters several elements thematically connected and that intersect in artistic and educative domains” (Rodrigues et al., 2020). Rather than being a single, traditional creation, each CMT project branches into a network of possibilities, such as sound installations, workshops, performances, trainings, and publications. Depending on the project, these constellations may be born out of thematic proximity, methodological approaches, or aesthetic values, reflecting how different forms of artistic expression can intersect and influence each other. For CMT, music is a transdisciplinary concept, not only tied to sound generation but also to the development of connections and avenues of communication between different groups of people.

Theoretical and artistic considerations

This article draws upon various theoretical and artistic approaches. The work of CMT is above all, inspired by four artists and theorists who have influenced their development of works for young children: Georges Aperghis, Mauricio Kagel, Rolf Gelhaar and Edwin Gordon.

Georges Aperghis is renowned for his innovative use of language in music, where words transcend their semantic meaning to become purely sonic elements. His exploration of language's sonic potential is particularly inspiring for creating performances aimed at babies and young children, who have yet to fully grasp the meaning of most words. In CMT's work, performers often use their voices to

transform words into musical textures, sometimes leading to "semantic satiation" (Smith & Klein, 1990), where repeated words lose their conventional meaning and are perceived as musical sounds rather than linguistic symbols.

Mauricio Kagel's work is distinguished by its interdisciplinary nature, in which the boundaries between music, theatre, and visual arts are intentionally blurred. His integration of set design, costumes, and sound into a cohesive performative experience reflects his belief that these elements are not merely decorative but are integral to the performance itself (Heile, 2006). This philosophy resonates strongly with CMT, where music is approached as part of a broader artistic and theatrical context.

Rolf Gelhaar's work as a composer explored both computer-aided and computer-augmented performance, sometimes targeting people with disabilities, whether they were professional musicians or not. His perspectives on music and composition greatly inspired CMT's work, particularly through his mentorship of their resident artist, Paulo M. Rodrigues. Consequently, many CMT projects incorporate computer technology to enhance both the performance and audience interaction.

Finally, Edwin Gordon's Music Learning Theory (Gordon, 2003), has had a profound impact on early childhood music education. CMT incorporates Gordon's insights to create works that are both performative and educational, engaging young children in ways that are developmentally appropriate.

Human interaction and communication are at the core of most CMT's projects. The "finished" work is not only a collection of artistic concepts made real, but also the result of all the different interpersonal connections that were created during its development. Such connections are fostered by physical presence and live interactions between those involved, implying that the sense of being together "here" and "now" is almost as important to these works as the musical material.

Most CMT productions include an element of audience participation and interaction. This is aimed at eroding the divisions between artist and audience by deconstructing what could be a one-way interaction and building a shared experience which enables

a feeling of co-presence⁷. This approach can be the basis for an entire project, such as community music projects like *Projecto X* (Graça et al., 2021). It can also be present in smaller performances, as in the case of *PaPI – Opus 8*.

CMT's approach to performer-audience interaction can be related to Augusto Boal's influential idea of the "spect-actor" (Boal, 1979). This means that being in the audience is not a passive role but involves active participation in the development of the performance. Essentially, members of the audience become characters of the play by collaborating creatively with the performer and influencing the direction of the performance. In *Papi – Opus 8*, every interactive moment hinges on this equality of engagement, with the audience sharing the responsibility for shaping these moments. While this responsibility is limited to the instances where these interactions occur during the performance, it nonetheless infers a certain ideological similarity to Boal's "spect-actors". The audience is both observing the strange world created by the performer (even more so through the screen in the online *Papi Opus 8.z*) and participating actively in the process of creating a shared vocabulary of bird sounds, bird movements and interpretations.

It must, however, be noted, that as opposed to Boal's ideology of the "theatre of the oppressed", neither *Opus 8* or *Opus 8.z* are connected to a definite political or revolutionary stance. Still, both approaches share a conception of theatre as a space of confrontation, construction and dialogue, be it artistic, ideological or simply human. The audience is engaged not only in the act of listening and observing, but also in the production of meaning through interactions with the performers. Both CMT pieces mentioned allow and encourage the "spect-actors" to invade the stage (with their voices and gestures) and become characters of the piece.

The shaping and performance of a CMT piece involves making use of a multitude of expressive and artistic tools. This will be explored in view of Dissanayake's (2017) concept of *aesthetic devices*, implying that there are various basically human operations that might be used to create an artistic work: *patterning*, *repetition*, *exaggeration*, *elaboration* and *manipulation of expectations*. These are all key

⁷ The feeling of being present while also being conscious of the presence of others and interacting with them.

elements in the creation of a CMT piece but were challenged and put to use in new ways when the production *Papi – Opus 8* was transformed into an online piece.

CMT performance work

Portable play to play (PaPI)

Over more than 25 years of activity, CMT has developed different views on what a performance can be. Depending on the audience and focus of each specific project, sometimes a stage piece may not be the most appropriate venue for creating connections. That is where PaPI comes in. PaPI is shorthand for *Peça a Peça Itinerante*⁸ (Portable Play to Play). PaPIs are small pieces where artistic, social and educative aims merge into a single experience. They are developed specifically to be portable and be able to be presented in different spaces, like pre-schools, museums and libraries. The pieces are usually aimed at small children but tend to be multidisciplinary and intergenerational, taking into account that the audiences also consist of parents and educators. This concept arose during the early development of the *Opus Tutti* project (Companhia de Música Teatral, 2021a; Rodrigues et al., 2016).

The PaPI pieces are generally presented by individual performers who are trained not only in music, but also in dance and theater. They are built upon the idea that art and play share common ground, opening for playful moments of interaction between performer and audience. Their portability allows the pieces to reach much wider than other CMT creations. They also allow for a deepening of connections between CMT and other institutions. After the performances, the audience is always invited not only to speak to the performers, but also to explore and play with the set, thus deepening the feeling that the performance took place in the same “here” and “now” they just occupied.

The stars in the Mil Pássaros Constellation

PaPI – Opus 8 is part of the *Mil Pássaros* (Thousand Birds) “constellation”, which is aimed at raising “awareness of environmental issues and the need to take care of each other and the planet”, seeing that these are issues which “know no borders and which need to be addressed from early childhood onwards” (Companhia de Música

⁸ This designation, in Portuguese, emphasizes the portability and travelling nature of the artistic work. Also in Portuguese, PaPI sounds like “daddy”, evoking infant vocalizations.

Teatral, 2019). The name of the constellation stems from an idea from Japanese culture, which implies that if you make one thousand origami cranes (*oritsuru*) you get to have one wish. In Japan the folding of *oritsuru* is linked to the aftermath Hiroshima bombing and wishes for healing and peace. Consequently, both *Mil Pássaros* and the foundational piece *Orizuro* embody this wish for a better world, for peace and togetherness.

The *Mil Pássaros* constellation invites the participants to become more aware of their surroundings, and to start listening poetically to the spaces they move through. The belief that this can and should be encouraged from an early age is the basis of the project. A complete implementation of *Mil Pássaros* begins with a training for teachers and others who work with children. They are invited to develop different experiences relating to birds and listening, both with their students and their families. This starts by creating an installation (*Primeiros Pássaros*) containing origami birds folded by the children. This is followed by the arrival of the piece *PaPI – Opus 8*, which makes use of this installation during the performance, while also interacting closely with the children and inviting them to share bird songs and their knowledge of birds. All the paper birds are then collected into a final installation⁹ accompanied by the performance of the piece *Orizuro* which expands on the musical material used in *PaPI – Opus 8*. Concurrently, a conference-performance called *Conferência dos Pássaros* (Conference of the Birds¹⁰) takes place, creating a space for reflection on all the different ideas arising throughout the *Mil Pássaros* constellation.

PaPI – Opus 8

PaPI – Opus 8 is an interdisciplinary, multimedia performance which makes use of various artistic tools to create avenues of communication with the audience. These tools, or *aesthetic devices*, as Ellen Dissanayake (2017) calls them, may be identified as: *patterning* (giving shape to something), *repetition*, *exaggeration*, *elaboration* and

⁹ This installation had different names in different cities: *Inúmera Mão* (Vila Nova de Famalicão), *Mil Pássaros* (Lisbon). In Vila Nova de Famalicão, it only contained 5 “birds’ feet” (objects with held Orizuros), while in Lisbon it was considerably larger. The name *Inúmera Mão* stems from a line in a poem by Ruy Belo, called *Algumas proposições com pássaros e árvores que o poeta remata com uma referência ao coração*.

¹⁰ This name evokes the epic poem by 12th century poet Farid ud-Din Attar, famously adapted by Peter Brook into stage as *La Conférence des Oiseaux* in 1979.

manipulation of expectation (Countryman et al., 2016, p. 7). As explained by Dissanayake:

These five operations are, interestingly, used by some animals, especially birds, in what ethologists call ‘ritualized behaviors’ – courtship behaviors used by peacocks or birds of paradise are a good example. And notably, artists use the same operations to make things special—thereby drawing people’s attention to the object or behavior, sustaining their interest, and evoking and shaping their emotions. (Dissanayake, 2017, p. 149).

Throughout the performance *PaPI – Opus 8* the performing artist, Inês Silva, engages with different aesthetic devices in various playful and improvisational ways. Using her body, she *elaborates* on objects, for example by changing the shape of a piece of canvas covering a frame in shape of an egg. This object can house her, but can also be made to “fly”, it can conceal her movements or hide other pieces of scenery. It can even be the canvas for shadow games. Other objects are also elaborated on and are given multiple “roles” during the performance.

The use of *patterning* is a striking element of the *Opus 8* performance. Patterns of sound and movement are fundamental to the musical elements of the piece – in musical sounds, in words and in bodily movements. As an artistic piece aimed at small children, *Opus 8* makes use of patterns that may be recognizable and feel secure, as well as patterns that can trigger the children’s imagination.

Repetition goes hand in hand with patterning and plays an important role in the piece, be it in the practically identical shape of the many *oritsurus*, the repeated rhythmic patterns made by the hitting of a woodblock, the dance steps or the narrative episodes. For small children, repetition is an invaluable tool to create familiarity with what is being presented. In a way, it echoes the repetition present in early vocal communication in infant-mother dyads (Trevarthen, 1999), as well as in children’s improvised vocalizations in the early years (Countryman et. al, 2016, Knudsen, 2008).

The performer also makes use of *exaggeration* as an aesthetic device by using large movements close to pantomime while imitating an enormous bird which may even give a feeling of otherworldliness. At the same time, this is contrasted by focusing on tiny set elements such as timer eggs or small figures made of metal wire.

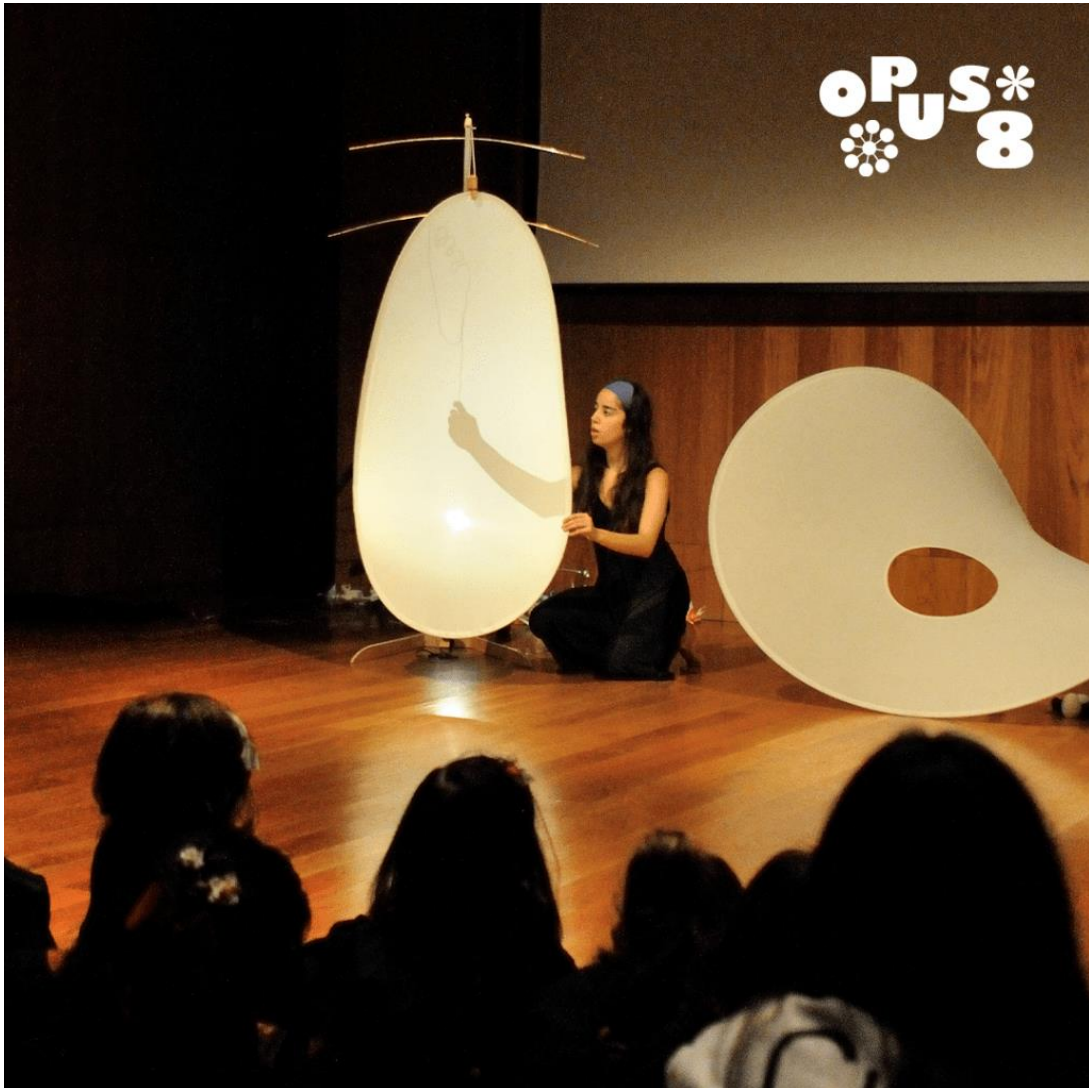


Figure 1. A live performance of PaPi – Opus 8. The artist uses different shapes of stretched canvas evoking "eggs". Photo by CMT.

The performer also makes use of *exaggeration* as an aesthetic device by using large movements close to pantomime while imitating an enormous bird which may even give a feeling of otherworldliness. At the same time, this is contrasted by focusing on tiny set elements such as timer eggs or small figures made of metal wire.

All these aesthetic devices come together to constantly play the game of *manipulating expectations*, to subvert what would be the most expected outcome of each part of the performance. Surprise is a fundamental emotion, which is essential

in keeping the audience's attention. Sometimes a pause in a familiar phrase or sequence, or the simple act of stopping a movement or a sound is enough to create the feeling of surprise and enhance the engagement with what is happening in the shared space.

The performer never really "speaks" with the audience but by using musical motifs or movements, she creates expectations of specific responses. Participation is expected and encouraged, whichever shape it may take. This enhances the feeling of co-presence, a feeling furthered by the artist occupying the same plane as the audience. If the performance takes place on a stage, the children will also be seated on stage, thereby avoiding the conventional barrier between the audience and what is happening in front of them.

PaPI – Opus 8 is rife with symbolism, using few words and no explanations. The imagery is related to birds, eggs, bird songs and flight although most of these symbols are presented through metaphors and pantomime. As such, they have different meanings for the children and adults watching. They are open to interpretation, inspiring many differing associations in the audience: to liberty, flight, playfulness, infancy, and dreams. While children may lack the necessary background for understanding the symbology, they can engage with the performance on the basic level of it being playful, surprising and full of sound and dance.

The various aesthetic devices employed are supported by the basic approaches and aims underlying the piece. *Opus 8* is a work aimed at children, with a particular focus on maintaining attention and concentration. This is achieved by using contrasts, especially unexpected ones, such as obfuscation of sound and visual sources, promoting wonder. For small children it may be their first experience of attending a performance. Even if it isn't, some of the sounds used are unfamiliar: an Indian harmonium, electronic sound samples, and the performer's extended vocal techniques. Also, the modular and movable scenery is manipulated in unexpected ways, and the focus on difference is used to enhance or exaggerate the extremes of sound, from low to high, soft to loud, complex to simple. The performer plays with sounds, repeatedly inviting the children to participate. The artist's vocal range is extensive, going from high soprano to low contralto, and with the ability to vary between different styles: folk song, opera and bird song.

PaPI – Opus 8 has a stable basic structure, but the performance is also molded according to inputs and initiatives from the audience, or *spect-actors* (Boal, 1979).

The artist picks up and reacts to vocal utterances and movements of the children. Sometimes this interaction will be intermodal: a sound will be responded to with movement, and vice versa. At the end of the performance imitation is encouraged more directly, as the children are asked to make and imitate the sounds and movements of birds. This also elicits comedy and humor, as the children's participation is often surprising. Comedy is a reaction to the unexpected and often depends on it. For example, the subversion of the use of regular objects (an egg timer; a piece of metal wire shaped into a face) may elicit a feeling of absurdness, and comedy. Since the performance makes use of abstract symbols and subverts the use of daily objects, comedy and humor are an integral part, further enhancing the feeling of playfulness, which in turn strengthens the relationship between performer and audience.

Transforming artistic performance – resilience and creativity

Defying resignation

The year 2020 triggered a dramatic upheaval in the "natural order" of life, as one of the planet's most primitive "organisms" drastically reshaped the existence of humanity, testing our collective willpower, ingenuity, determination, imagination, and creativity. This vulnerability became glaringly apparent, underscoring the imperative to cooperate and forge connections. It ignited a fervent need to dream and believe in the possibility of crafting a better world. Amid the turmoil of the pandemic, CMT embarked on a quest and discovered several avenues to sustain their ongoing projects, often embracing experimentation with digital tools. They adapted to new circumstances, fostering experiences that explored innovative strategies to breathe life into their ideas, while maintaining the bonds they had cultivated with communities, artists, and audiences. Throughout these tumultuous times, birds consistently held their place at the forefront of their "resistance." In an act of defying resignation, CMT, in the early days of lockdown, released a video titled *Voar*¹¹ (to fly) inviting individuals to symbolically create and share orizuru birds. This was followed by *Poemário*, an assemblage of "audiovisual poems" collaboratively crafted by artists in confinement from their homes. *Poemário Vivo* followed, a performance using the Zoom platform to unite two artists performing from different cities.

¹¹ This video can be seen in <https://vimeo.com/399679972>

The special focus of these projects was the need to reintegrate communication and audience interaction in projects that now took place through the medium of Zoom. The artists had lost their possibilities for embodied, collaborative creation, but their thirst for responsive human connection propelled them to discover new ways of making music together.

Retaking creativity with Poemário

The first of these projects was *Poemário* which consisted of a collection of audio-visual poems¹², published online in March 2020. The way these poems were constructed was by a process of “non-real-time conversation”. This meant that one artist would create the visuals, then another would create the corresponding soundscape, and finally a third artist would edit it together.

Through this process CMT demonstrated that artistic collaboration was still possible. Nonetheless, the process was unsatisfactory when compared to live performance, and soon CMT collaborators started to delve deeper into different video conference applications, eventually settling on the Zoom software which gave the artists the possibility of real-time creation and interaction with audiences. Followingly, CMT started to incorporate some ideas that emerged during the conception of *Poemário* into a live performance they called *Poemário Vivo* (Living *Poemário*, since it took place live). This performance employed the imagery of *Poemário*, while also incorporating regular CMT performance tools used in *PaPI – Opus 8*, like the use of simple objects, references to birds and multiple types of music material.

Live Zoom performance with Poemário Vivo

Poemário Vivo premiered in April 2020 and was CMT’s first step towards “regaining” the ability to create live interactive performances¹³. Doing so involved the need to deal with various technical challenges. The choice of using a video-conference software and not delving into livestreaming was based on the focus on audience participation. Zoom, like other similar applications, allows for dialogues and other kinds of communication with whoever is on the other side of the call. This helps break

¹² These 7 poems can be accessed in <https://musicateatral.com/cmteca/?st=Poemário>. They were commissioned by Fábrica Artes - Centro Cultural de Belém to compensate for the cancellation of *Mil Pássaros* live activities that were scheduled to take place throughout 2020.

¹³ Also commissioned by Fábrica das Artes - Centro Cultural de Belém

down the “fourth wall”, dispelling the sense that the audience is watching a recording and enhances the feeling of the performance happening “here” and “now”.

Nonetheless, these software applications lack capabilities for simultaneous audio performance. *Poemário Vivo* involved the same performer as *PaPI – Opus 8*, as well as a pianist situated in another city¹⁴. The two artists faced considerable challenges in synchronizing their playing, resulting in inconsistent sound quality and frequent interruptions by abrupt cutoffs.

While these problems pushed CMT artists to relinquish playing in sync, they still had the possibility to engage with rudimentary forms of interaction with the audience. The bird imagery that inspired the *Mil Pássaros* constellation was maintained, symbolising rebellion against the confinement measures. On the one hand the pandemic had removed everyone’s liberty of movement, but on the other hand it couldn’t remove the ability to “fly” in the imagination¹⁵.

Iteration and rebirth: PaPI – Opus 8.z

The insights gained from developing these different projects gave the necessary drive for adapting *PaPI – Opus 8* to a Zoom performance. Thus, *PaPI – Opus 8.z* was born. The aim of the adaptation was to keep the focus on performing for schools and pre-schools, while also having a high degree of audience interaction.

Adapting an existing performance to a new format involves alterations that challenge the artistic process. Although these changes are primarily driven and shaped by external restrictions, we argue that they can still be understood as *aesthetic devices* (Dissanayake 2017), guided by artistic intent and thought. While the need for modification arose from external constraints imposed on the artistic company, implementing these necessary, and often significant, adjustments required artistic choices, and a reconsideration of the aesthetic tools employed. As we discuss in the remainder of this article, the necessary *elaboration* of the performance involved changes in the *patterns* of the piece on various levels, involving new uses of *repetition* and imitation suitable for online interaction. Additionally, it meant that the aesthetic device *exaggeration* had to be approached in new ways, for example due

¹⁴ Restrictions imposed by the quarantine, prevented the artists from meeting in person.

¹⁵ A trailer for this project can be watched here: <https://vimeo.com/443293542>

to the possibilities and limitations of the video cameras, the lighting and the screens watched by the audience. Finally, a most important aesthetic device in this kind of performance, *manipulation of expectation*, had to be re-addressed. Traditional performance tools, such as pauses in musical or bodily sequences, required transformation to effectively resonate through the virtual platform. This included readjusting the stage settings, the narratives and the timings of sound and dance so they still maintained the essential feeling of co-presence, without sacrificing the musical and theatrical content.

The “here” and “now” of a live performance is assured, even implicitly, by the perception of it taking place in roughly the same physical place as the audience. This is a basic component of the *PaPI – Opus 8* artistic experience: to the ears and eyes of the children that are watching, a new and different world that “really” exists is created, corroborated by their sensorial perception. This implausibility of contact with a different world leads to the feeling of surprise and is maybe the origin of the power that live performance has on children (Dissanayake, 2011). The translation of such an experience to a screen creates a “despatialization”, a rupture in the connection between the performance and the children: there is no longer a continuum of space, and one of the most basic connections between the artistic experience and the children is broken.

A performance taking place in a space (the screen) where children are accustomed to seeing various other things, each more exuberant and complex than the last, may lead to a loss of the “magical” aura of live performance (Anderson & Pempek, 2005). Also, the livestreamed performance must “compete” with what children are used to seeing on a screen, while also losing in comparison to the same performance happening live.

It is important to note that the term “live” is becoming more and more ambiguous, since the temporal gap between what happens and the viewing of what happened diminishes. Currently, and for most children, it is common to be able to see, rewatch, stop, fast-forward, store, delete and edit something that once only took place in a single, momentary time space. This means that the idea of “unique experience” underlying an artistic performance, and the intimacy that it fosters by taking place “live” has been losing ground (Rajan, 2016).

Most audiovisual experiences that children have access to, such as television and other media consumed online, are based on transmission – there is a clear distinction

between the “emitter” and the “receptor”, with the latter being passive by default. Not completely passive though, because they can always switch to another channel or search for another video, if what is being watched does not hold their attention. This possibility also devalues the potency of something being “live”. In the world of screens few things happen really “live” and are actually watched while they are taking place.

Situated within this paradigm of intense competition, there arose a challenge of transferring an experience of shared time and space to the screen. The most important aim that CMT had was to maintain that *PaPI – Opus 8.z* was an artistic experience that took place “live”, although in another “space”. It was important that what was happening and the perception of it happening were synchronous but, above all, that it was obvious both to the performer and the children that they shared the same “time”. This perception would enable the acknowledgement of a common bond: they weren’t in the same “here”, but they shared the “now”.

The way this was accomplished was similar to the approach used in *Poemário Vivo*, by establishing some moments in the structure of the piece where dialogue took place between the performer on the screen and those watching in a sofa or classroom. This was done by asking, listening, answering and incorporating the children’s responses into the script in real-time: asking for help to complete a song; inviting them to fly together or having a talk after the performance. In this way, the bonds of a live performance were maintained since the artist was able to elicit the feeling of “common time” – of being together and connected.

The following is a list of some of the issues CMT engaged with and explored when adapting the performance to Zoom:

- The ability to choose the “point of view” of the audience by changing camera positions and using several cameras. This enabled the use of performing in positions that wouldn’t be visible in the live performance (for example, under pieces of scenery).
- The different camera angles allowed for points of view very close to the ground, and from far away. This had an impact on the perception of the scale of the performer and the objects. For example, when the performer used timer eggs in the live performance, they appeared realistically small, but in the Zoom

version the artist got close to the camera, allowing the magnification of these objects.

- Any moment using shadows became easier to replicate in different performances, since lighting conditions didn't change. The performer was always on a dark stage with set lighting.
- One of the first moments of interaction in both performances is when the artist asks the audience to complete some rhymes about a woodpecker. For the Zoom version, this had to involve pausing the performance, asking the audience members to unmute their microphones, and wait for an answer.
- A moment that usually involved the performer "flying" very close to the audience and asking them to also "fly", was extended, allowing the audience to see other listeners moving in the Zoom grid view (Figure 2).
- The last moment involved the performer dancing with some orizuros hanging from her hand, getting very close to the audience. This is not possible over Zoom, so the moment was shortened.



Figure 2. A Zoom window in a moment of interaction between the audience and the artist, who encourages the children to "fly" with her. Screen capture by CMT.

In *PaPI – Opus 8*, the performance space would be prepared in advance by the artist, enabling her to enhance the characteristics of the room to promote concentration and attention. Both performances last about 30 minutes, although both are very open to in loco adaptation depending on the children's responses. This is because children's ability to keep attentive to a performance is dependent on diverse factors, both relating to the room they are in, to their own state of mind, or even to prior experiences they may have had. Most performances require that children stay in the same place for a fixed period of time. The presence of caretakers in the room, and the way they react also impacts the children's attention. Concentration and attention is contagious, so if the adults in the room are concentrated, the children will be predisposed to also be so (Rajan, 2016).

In the Zoom version, the performer had little control over the conditions of the space, making it hard for her to ensure the optimal conditions for concentration. Since the performance was either projected on a screen or watched on a monitor, light conditions needed to be controlled to ensure the best viewing experience. However, not all classrooms or living rooms have the necessary conditions to enable the right level of darkness. Slow internet speed could also impact the performance, especially in the moments of interaction. These issues had to be dealt with through quick improvisation and adaptation. To have the best quality of experience, the audience should have a stable internet connection, appropriate lighting conditions (preferably a dark room), good speakers or headphones and a large enough screen (either television, computer screen or projection).

One of the advantages of adapting a performance to Zoom is the ability to change and control viewpoints by moving the webcam (*Figure 3*). For example, while the performer could no longer approach a child with one of the timer eggs, they could move it so close to the camera that it would fill the entire screen. Such changes in perspective were used liberally in the Zoom version, to explore other "spaces" and states of being. Controlling the lights, for example by covering the camera, also allowed the performer to explore different ways to elicit surprise in the audience.

According to the performer, Inês Silva, one important characteristic of *PaPI – Opus 8* is that there are no moments of interaction in the script itself. Interaction happens when she imitates or transforms a movement or a sound coming from the audience, something that is different in every performance.



Figure 3. A point of view obtained by experimenting with webcam positions.
Photo by CMT.

In the online version CMT had to introduce certain moments in the script that allowed this interaction to happen. The audience would have a total of five moments that involved interaction. Initially, there is a welcome moment by Gustavo Paixão, a regular CMT collaborator and artist that supports Inês and acts in the backstage throughout the performance. This moment is important for several reasons. Gustavo welcomes the audience, just like in a theatre, giving technical indications so that the performance can run smoothly and, in doing this, he calls people by name, asking them to turn on the camera, and helping them if there are any technical problems. All of this acts as an icebreaker.

Subsequently, there are three moments of direct interaction with the audience during the performance itself: a rhyming game, a game using the names and sounds of birds and a final interaction when the audience is invited to “fly”. Finally, as in the live *PaPI – Opus 8*, there is space for a conversation with the audience.

All these interactive moments take *Opus 8.z* away from simply being a conventional video stream and create a closer connection with the audience. As the artist relates, “it’s as if you were entering the homes of the families who are watching and were with each of them in their living rooms putting on a show” (Inês Silva, personal communication, October 2023).

In the early days of the pandemic, when children were still unfamiliar with the particularities of Zoom, many were amazed by these moments of interaction. The

artist soon realized this since in the final conversation section, similar statements would appear: "can you really see me?" "Wow, you're magic", "how do you know my name?". This seems to reinforce the ideas presented earlier about the impact of live performance compared to pre-recorded shows (Anderson & Pempek, 2005).

It is important to mention that following the introduction of these new moments of interaction, CMT decided to remove one of the songs from the script, as the length of the performance was already getting too long. Length is an important factor when considering a Zoom performance, since "Zoom fatigue" can settle in after prolonged use of video-conferencing software (Ngien & Hogan, 2023; Queiroz et al., 2023).

Another change was the scenography. CMT decided to remove the "bird's foot", a piece from the *Mil Pássaros* installation described earlier, since when it was seen through a camera it wasn't so visually "readable". This decision made the action space slightly smaller, which was an advantage when it comes to image quality - the further away from the camera, the less sharp the image. But, as the performer said, "my movement also had to change, not only because of the reduced space for action, but also because I was now addressing two cameras and an audience on a screen" (Inês Silva, personal communication, October 2023). For her, this was the most difficult adaptation, since in order to foster the sense of "here" and "now", she couldn't look away from the camera, also implying that she couldn't look at the screen while talking to them. This meant that the artist couldn't see the audience, gauge their reactions, and imitate and respond to their expressions and movements.

Over time Inês Silva developed a few new techniques, such as "glancing at the screen when they [the children] were talking, or when I think the interaction with a person is coming to an end, I look at the screen to see who will be next". However, this is a very different kind of interaction when comparing to *PaPI – Opus 8*. In a live context the performer is very attentive to all the movements and sounds coming from the audience, with most of her cues for interaction coming through non-verbal communication. In *PaPI – Opus 8.z*, however, she often doesn't see them and most of the time the audience has the microphone switched off.

Accordingly, a stark contrast between the two versions of the performance is that in a live context the communication is mostly non-verbal, while over Zoom it is mainly achieved through language. However, limitation breeds creativity, and an adaptation to enforced difficulties may reveal new avenues for action. As the artist relates: "that's also why I learnt a few phrases in Polish and Thai". The online format enabled CMT

to perform simultaneously to a class from a school in Madeira and another class from a school in southern continental Portugal (Niza), with the children from the two classes seeing and hearing each other online. As Inês commented, “it also empowered CMT to reach places where *PaPI – Opus 8* doesn't normally go, such as hospitals” (Inês Silva, personal communication, October 2023).

Here and now – concluding remarks

The arts have always shown their power in enabling the feeling of shared time and space: be it by making the audience feel so empathetic about a character on stage that they can't stop crying (Singh, 2012), or by being so realistic that it may trigger a stampede of people trying to run away from the movie screen (Loiperdinger & Elzer, 2004). Although many such stories may be nothing more than myths, they elucidate the human desire to create new spaces and times for shared existence through art. This may involve looking at a painting, a stage, a screen, a page, or hearing an orchestra, a choir or a band, and to see beyond the artifice and immerse oneself into some kind of real “here” and “now” that is separate from daily life. CMT's experience over the years involves that this shared space is constructed by co-presence, by actually sharing the same physical space.

The pandemic's impacts are still being figured out, but unquestionably, any artistic medium that depends on physical presence was severely disturbed. While the “fourth wall” was never something strongly present in CMT's creations, it was especially hard to break when it had to be done through a screen. CMT's aim with *PaPI – Opus 8.z* was to enable a new avenue for creative expression during the confinement, and to construct feelings of co-presence when sharing the same physical space was impossible.

The notion of shared space, effortlessly maintained in live situations, was the biggest “loss” in the transformation to Zoom. This sense of connectedness was artificially restored, lacking the intensity of a shared physical space. Nonetheless, certain things were gained, as with the ability to change viewpoint and perspective with the flick of a button. This allowed CMT to approach some aspects of the performance in a more cinematic manner, and to enhance a feeling of otherworldliness. Inspired by the performance of *Poemário Vivo* at the Bangkok International Children's Theater Festival, *PaPI – Opus 8.z* also started to be presented in other countries, like Norway and Brazil. The “bird-guided” journeys through uncertain territories in recent years have unveiled new possibilities, like performing for children who couldn't be present

in live shows, such as children in hospitals and care-homes. Contexts such as these make CMT artists rethink the varying depth of the concepts of “here” and “now”.

CMT is eager to continue exploring these horizons creatively. The world, in its perpetual evolution, continues to yearn for both real and imaginary birds, creatures that infuse our existence with sensitivity and illuminate alternative approaches to life. This is why it remains paramount for CMT to shed light on the core ideas within the *Mil Pássaros* constellation, even though this task may prove challenging, given that each instance of the project carries its own unique characteristics.

The adaptation to Zoom was impelled by the resolve to fight the restrictions on shared physical presence imposed by the confinement. CMT kept the focus on maintaining and nourishing the basic communicative impulse that accompanies us from cradle to grave (Malloch & Trevarthen, 2008). This impulse is present in all children and should be fostered whenever possible, using shared artistic experiences to elicit surprise, joy, wonderment, and other feelings that promote internal growth. Although no Zoom performance can substitute sharing the same physical space, it can be a valuable tool when that shared space is impossible to obtain.

About the authors

Jorge Graça is a PhD candidate researching community music projects in musical sciences at NOVA University of Lisbon – Faculty of Social Sciences and Humanities (NOVA FCSH). From 2014 to 2020 he taught saxophone and music technologies at the David de Sousa Conservatory and now focuses on electronic music, performance technologies, and participatory artistic practices. Graça collaborates with Companhia de Música Teatral as a performer, musician, and creator of soundscapes for artistic installations.

Helena Rodrigues is associate professor at NOVA University of Lisbon – Faculty of Social Sciences and Humanities (NOVA FCSH) and founder of The Laboratory of Music and Communication in Infancy which is part of the Centre for the Study of the Sociology and Aesthetics of Music (CESEM) at the university. With nearly two decades of study under Edwin Gordon, she completed her PhD under his supervision. She co-founded Companhia de Música Teatral, specializing in interdisciplinary artistic and educational projects rooted in music. Rodrigues co-

coordinates the Group of Education and Human Development at CESEM and the post-graduate program Music in Childhood: Intervention and Research.

Paulo Maria Rodrigues is a composer, performer, artistic director, and educator. After completing a PhD in genetics and biochemistry, he pursued music studies, graduating in opera at the Royal Academy of Music and studying composition with Rolf Gehlhaar. Co-founder of Companhia de Música Teatral, he explores the intersection of music, other artistic languages, and technology, viewing art as a tool for human development. He has led participatory artistic projects at Casa da Música and is currently an assistant professor at the University of Aveiro.

Jan Sverre Knudsen is professor of music at Oslo Metropolitan University, Faculty of Education and International Studies. His research interests are related to various sub-disciplines of current musicology: music therapy, ethnomusicology, music education and the sociology of music. Knudsen has published widely on the role of musical practices in immigrant communities, amateur hip-hop performers, intercultural concert promotion in schools, and issues related to nationality and ethnicity in music education.

References

- Anderson, D. R., & Pempek, T. A. (2005). Television and Very Young Children. *American Behavioral Scientist*, 48(5), 505–522.
<https://doi.org/10.1177/0002764204271506>
- Boal, A. (1979). *Theater of the oppressed*. Pluto Press.
- Brooks, S. K., & Patel, S. S. (2022). Challenges and opportunities experienced by performing artists during COVID-19 lockdown: Scoping review. *Social Sciences & Humanities Open*, 6(1), 100297.
<https://doi.org/10.1016/j.ssaho.2022.100297>
- Collins-Hughes, L. (2020, July 8) 'Digital Theater isn't Theater. It's a Way to Mourn its Absence, *New York Times*.
- Companhia de Música Teatral. (2019). Mil Pássaros – Mil Pássaros, Mil Lugares. *Mil Pássaros*. <http://milpassaros.com/>
- Companhia de Música Teatral. (2021a). PaPI. *Companhia Música Teatral*.
<https://musicateatral.com/en/constelacao/papi-2/>
- Companhia de Música Teatral. (2021b, April 29). Opus 8.z. *Companhia Música Teatral*. <https://musicateatral.com/en/opus-8-z-2/>

- Companhia de Música Teatral. (2024, January 26). About CMT. *Companhia de Música Teatral*. <https://musicateatral.com/en/about/>
- Countryman, J., Gabriel, M., & Thompson, K. (2016). Children's spontaneous vocalisations during play: Aesthetic dimensions. *Music Education Research*, 18(1), 1–19. <https://doi.org/10.1080/14613808.2015.1019440>
- Denzin, N. K. (2009). The elephant in the living room: Or extending the conversation about the politics of evidence. *Qualitative Research*, 9(2), 139–160. <https://doi.org/10.1177/1468794108098034>
- Dissanayake, E. (2011). Prelinguistic and Preliterate Substrates of Poetic Narrative. *Poetics Today*, 32(1), 55–79. <https://doi.org/10.1215/03335372-1188185>
- Dissanayake, E. (2017). Ethology, Interpersonal Neurobiology, and Play: Insights into the Evolutionary Origin of the Arts. *American Journal of Play*, 9(2), 143–168.
- Gauhe, G. (2024). Artist's perspectives and creative methods for online multi-sensory performances during and after COVID-19: A qualitative interview study. *International Journal of Performance Arts and Digital Media*, 1–25. <https://doi.org/10.1080/14794713.2024.2337960>
- Gordon, E. E. (2003). *A music learning theory for newborn and young children* (2003 ed). GIA Publications.
- Graça, J., Rodrigues, H., & Rodrigues, P. M. (2021). Projecto X: A Journey Inside Ourselves and What We Found When We Arrived. *Nordic Journal of Art and Research*, 10(2). <https://doi.org/10.7577/information.3732>
- Heile, B. (2006). *The music of Mauricio Kagel*. Ashgate.
- Irwin, R. L. (2013). Becoming a/r/tography. *Studies in Art Education*, 54(3), 198–215. <https://doi.org/10.1080/00393541.2013.11518894>
- Isherwood, C. (2012, April 20). A Play That Resounds in the Heart and the Gut. *The New York Times*. <https://www.nytimes.com/2012/04/22/theater/readers-respond-to-death-of-a-salesman.html>
- Karam, K. M., & Naguib, G. M. (2022). The Potentials and Challenges of Zoom Live Theatre during Coronavirus Lockdown: Pandemic Therapy and Corona Chicken (Part Two). *New Theatre Quarterly*, 38(2), 151–171. <https://doi.org/10.1017/S0266464X22000057>
- Knudsen, J. S. (2008). Children's Improvised Vocalisations – Learning, Communication and Technology of the Self. *Contemporary issues in early Childhood, Special issue: Children and the Arts.*, 9(4), 287-296. <https://doi.org/10.2304/ciec.2008.9.4.287>

- Loiperdinger, M., & Elzer, B. (2004). Lumiere's Arrival of the Train: Cinema's Founding Myth. *The Moving Image*, 4(1), 89–118.
<https://doi.org/10.1353/mov.2004.0014>
- Malloch, S., & Trevarthen, C. (Eds.). (2008). *Communicative musicality: Exploring the basis of human companionship*. Oxford University Press.
<https://doi.org/10.1093/oso/9780198566281.001.0001>
- Ngien, A., & Hogan, B. (2023). The relationship between Zoom use with the camera on and Zoom fatigue: Considering self-monitoring and social interaction anxiety. *Information, Communication & Society*, 26(10), 2052–2070.
<https://doi.org/10.1080/1369118X.2022.2065214>
- Queiroz, A. C. M., Lee, A. Y., Luo, M., Fauville, G., Hancock, J. T., & Bailenson, J. N. (2023). Too tired to connect: Understanding the associations between video-conferencing, social connection and well-being through the lens of Zoom fatigue. *Computers in Human Behavior*, 149.
<https://doi.org/10.1016/j.chb.2023.107968>
- Rajan, R. S. (2016). Front Row Seats: Preparing Young Audiences for Live Performances. *Music Educators Journal*, 103(1), 49–54.
<https://doi.org/10.1177/0027432116654947>
- Rodrigues, H., Miguel, M., Vences, M., Santos, M., & Rodrigues, P. M. (2020). Artistic-educative constellations: Intertwining music education materials with artistic creation and training for educators and artists. In *Music education and didactic materials*. Grupo de Investigación Stellae : IARTEM. Dialnet.
<https://dialnet.unirioja.es/servlet/libro?codigo=778491>
- Rodrigues, H., Rodrigues, P. M., & Rodrigues, P. F. (Eds.). (2016). *Ecos de Opus Tutti – Arte para a Infância e Desenvolvimento Social e Humano*. Fundação Calouste Gulbenkian. <https://cesem.fcsh.unl.pt/publicacao/ecos-de-opus-tutti-arte-para-a-infancia-e-desenvolvimento-social-e-humano/>
- Singh, P., Bala, H., Dey, B. L., & Filieri, R. (2022). Enforced remote working: The impact of digital platform-induced stress and remote working experience on technology exhaustion and subjective wellbeing. *Journal of Business Research*, 151, 269–286. <https://doi.org/10.1016/j.jbusres.2022.07.002>
- Smith, L., & Klein, R. (1990). Evidence for Semantic Satiation: Repeating a Category Slows Subsequent Semantic Processing. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 16(5), 852–861.
<https://doi.org/10.1037//0278-7393.16.5.852>

Jorge Graça, Paulo M. Rodrigues, Helena Rodrigues, Jan Sverre Knudsen
Constraints and creativity

Trevarthen, C. (1999). Musicality and the intrinsic motive pulse: Evidence from human psychobiology and infant communication. *Musicae Scientiae*, 3(1_suppl), 155–215. <https://doi.org/10.1177/10298649000030S109>