Virtual Choir: To Sing Together, Individually

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Abstract

The pandemic has forced choir practitioners and enthusiasts to shift from in-person rehearsal and performance to online and virtual choir performance. The virtual choir is seen as an alternative to choir activity during the pandemic. However, it also generates another concern related to its inclination to reduce the role of the conductor, singers, and social interaction in achieving musical targets and enhance the so-called social skills, empathy. The study employs two conductors in an in-depth interview to understand the condition and dynamics of online rehearsal and virtual choir performance. The exploration of the data emphasized three important themes: (1) the role of virtual choir to choir continuity, (2) the impact of virtual choir technology in reducing individuals' role, and (3) the absence of in-person social interaction in empathy enhancement.

Keywords: choir, virtual choir, empathy

Paduan Suara Virtual: Bernyanyi bersama, seorang diri

Abstrak

Pandemi memaksa praktisi dan penggemar paduan suara untuk beralih dari latihan dan penampilan live menjadi skema latihan online dan pertunjukan virtual. Paduan suara virtual dipandang sebagai alternatif untuk tetap menjalankan aktivitas paduan suara di kala pandemi. Namun, paduan suara virtual juga memunculkan keprihatikan dan perhatian khusus terkait kecenderungan untuk mereduksi peran konduktor, penyanyi, dan interaksi sosial dalam mencapai target musikal dan juga peningkatan keterampilan sosial, salah satunya empati. Penelitian ini berupa wawancara terfokus pada dua konduktor paduan suara yang bertujuan untuk menggali pemahaman terkait kondisi dan dinamika latihan daring dan pertunjukan paduan suara virtual. Hasil ekspolasi data dan analisis menunjukkan tiga tema penting yakni (1) peran paduan suara virtual untuk keberlanjutan aktivitas paduan suara, (2) dampak teknologi yang digunakan dalam paduan suara virtual terhadap reduksi peran humanis, dan (3) ketiadaan interaksi interpersonal secara langsung dan dampaknya terhadap peningkatan empati.

Kata kunci: *paduan suara, paduan suara virtual, empati*

INTRODUCTION

The choir discourses have evolved widely from using singing techniques to achieve certain choral sound quality to the social and psychological benefits of choir singing amongst singers and the conductor. Much contemporary research focuses on how choir as musical group activity be potential to provide a safe space in terms of socialization and inclusion for refugees (Marie Schuff, 2014), homeless men (Bailey & Davidson, 2002), marginalized singers (Bailey & Davidson, 2005), homosexuals (Latimer, 2008), disadvantaged people (Dingle et al., 2013), also people with mental health disorders (Clift & Morrison, 2011). This musical group

activity is also claimed to be explicitly beneficial for psychological well-being (Boldt, 2015; Clift et al., 2010; Clift & Morrison, 2011; Livesey et al., 2012) Further, the happiness and socio-emotional wellbeing also happened to adults participating in choir that is related to the activity and individual's motivation (Maury et al., 2022). The idea of a choir as a place of social interaction is also highlighted by research focusing on social skills enhancement through choir and musical group activity. Empathy is considered to be important in the communication (Luca et al., 2001) process, and teamwork is one of the social skills that is highly researched concerning a musical group activity. The thought drives the assumption of the choir's potency to foster empathy that choir involves social interaction and mental simulation, as explained in Theory of Mind. Meanwhile, the idea that music has the potency to promote empathy is based on the thought that music encompasses both cognitive and affective functions as it is in empathy processing. It resonates with the main idea that is brought by Rabinowitch et al. (2013) in their research.

The definition of empathy can vary widely, but generally, it is connected in certain senses, such as a mental state that is affected by another's mental state and how it adapts to the other's mental state while responding appropriately (Baron-Cohen, 2009; Goldstein & Winner, 2012; Greenberg et al., 2015; Hoffman, 2008). Hoffmann identified empathy to be generated in five modes: mimicry, conditioning, direct association, verbally mediated association, and perspective-taking. The first three modes tend to be involuntary and moved by surface observation. It is like our reflex to make a particular facial expression of pain when seeing a person in such pain. Meanwhile, the latter two modes require higher cognitive function to proceed. For example, in verbally-mediated association, a person needs to transform specific verbal language stimulation into visual imagination before he/she can feel another's feelings and empath in a specific way. The last mode even requires higher brain function to imagine the position, condition, and what others went through to be in their current mental state. The Theory of Mind, famous under the name of mentalizing and mind-reading, explained the more mechanistic explanation of empathy. In its development, the theory of mind has two streams of thoughts, namely The Theory of Mind (TT) and Simulation Theory of Mind (ST) and the hybrid of those (Shanton & Goldman, 2010; Zahavi, 2010). The ST emphasizes the human brain using itself as a simulation or a model to understand another's mental state. The view supports the idea of modeling or simulation generated by the brain in neuroscience, where the human brain is mentioned to have this so-called mirror neuron (Shanton & Goldman, 2010) Meanwhile, TT argues that understanding the other's mental state mainly depends on an individual's intellectual process, starting with our conclusion to others.

Many researchers from different perspectives explain the assumption of musical activity's potential to foster empathy. For example, Rabinowitch et al. (2013) emphasize the role of elements in musical group interaction, namely imitation, motor resonance, and entrainment, which are prominent in enhancing empathic skills such as face recognition and inclination of simultaneous bodily movement. Meanwhile, Parsons et al. (2014) states that musical training in childhood affects adult pitch recognition ability, which is influential in identifying an infant's distress and being empathetic. The primary notion of the relation between music and empathy is based on the understanding that the two both attributed to cognitive and affective processes simultaneously (Greenberg et al., 2015). Based on Hoffman (2008) explanation of empathy generation modes, we can try to applied it into choir practice context by relating it into Gonzo (1977) concept of vocal choir learning.

Gonzo divided the way choir conductors teach and correct the singer into three modes: a direct explanation using literal speech, modeling, and metaphorical figural speech as a psychological device in communication. The explanation mentioned by Gonzo is mainly cognitive. It requires the singer to solve the task using their exact understanding of music, for example, the execution of beat and Vowell-consonants. The modeling requires singers to imitate what other person is doing and apply it to themselves. Meanwhile, the last mode requires a higher cognitive function that involves visual imagination and understanding what the conductor wants and doesn't want. The way Gonzo elaborates on the modes in choir teaching is more or less similar to the empathy generation modes explained by Hoffman. Gonzo emphasized imitation in modeling. Manternach (2012) also showed that mimicry is essential in choir singers, who tend to imitate the conductor's facial expression to control their vocal production. The two last modes of empathy generation mentioned by Hoffman, verbally-mediation association and perspective taking, resonate with Gonzo's notion of visual imagination, literal and figural speech, and the use of metaphor during choir practices. Wardani (2019) also mentioned the relationship between empathic abilities and the musical aspect of the choir is reciprocal. The reciprocality is that empathic ability can help singers to achieve the musical target of the choir; meanwhile, by doing the musical activity and its interpersonal interaction, the singers can enhance their empathic ability.

It is agreeable that the interpersonal interaction of singers in a choir is prominent in promoting empathic ability, and the enhancement of empathic ability in singers can be beneficial for the choir to achieve their musical targets. Things became completely different when the pandemic of COVID-19 forced many choirs to stop their regular rehearsal and concert swiftly into a virtual scheme. The virtual choir became more popular during the pandemic of COVID-19 because of the limitation of social and physical interaction. The emergence of the virtual choir is

unavoidable since the prevention of COVID-19 has become priorities in many countries. Further, as a group activity that requires interaction in a relatively contiguous place, choir rehearsal is vulnerable to transmitting COVID-19 viruses among its member (Charlotte, 2020). Meanwhile, this virtual choir concept is not new if we look back to Eric Whitacre's virtual choir concert in 2008 that involved thousands of singers worldwide performing *Lux Aurumque* (Galván & Clauhs, 2020). It is important to understand that in-person choir and the virtual choir generated different effect to its singers. Grebosz-Haring et al. (2022). Since the emergence of the virtual choir, researchers have examined the influence of this practice on individuals and how it is compared to an in-person choir setting. Grebosz-Haring et al. (2022) did a naturalistic study to find the impact of in-person singing and virtual choir on individuals' psychological and biological aspects. Regarding the study, an in-person singing setting has a greater impact in reducing momentary stress, increasing calmness, and giving higher social contacts compared to a virtual singing setting. Regarding social contact, the singers in virtual singing settings might feel less connected to the team because they don't interact physically. Whereas strong group dynamic and a sense of belonging to the team can help reduce stress.

Daffern et al. (2021) also explain the difference between in-person and virtual singing through a cross-sectional online survey of UK choir members and facilitators. The study generated six main themes regarding the comparison between in-person and virtual singing. The virtual choir setting cannot be seen as advantageous or disadvantageous. Still, it is important to understand the broad spectrum of possibilities brought by these two schemes of rehearsal and performance. In the study, Daffern showed how virtual choir is efficacious in providing choir continuity through flexible and affordable rehearsal and performance schemes. It also forces the facilitators to be creative in designing an alternative way of vocal teaching and rehearsal.

In contrast, the virtual choir scheme is also prone to eliminate a vast amount of social interaction, affecting not only the social aspect but also the musical achievement of singers. Not to mention the technical issues that might be occurred during the teleconference and recording. Galván & Clauhs (2020) showed the challenges of the virtual choir that might emerge from technical issues such as the high variability of recording quality caused by diverse equipment used by singers. This sound latency complicates the rehearsal and recording for the singer and the difficulties of audio editing for complex choral works with many layers and voice parts. The biggest challenge regarding the absence of social interaction is the vulnerability of singers to a lack of ownership toward the team and the difficulties for them to sing individually without the support of other singers.

Now that we can map the potentials of both in-person singing and virtual choir, we need to dig more into how the absence of social interaction and the domination of technology infers the singers in the way they create music and how it affects the way singer empathize to other singers in their team. Is it still possible for a choir to employ activities related to empathic abilities and achieve social skill enhancement through virtual choir?

METHOD

To understand the way virtual choir changes the musical learning and social interaction in a choir group, Wardani conducted qualitative research on in-depth interview to two choir conductors with different choir team background. The first interviewee is a conductor of a university choir and an independent choir with mostly singers are adults. Meanwhile, the second conductors are a conductor of children and teenager choir. Both conductors were actively participated, involved, and produce virtual choir during the pandemic times. The interviews were done by teleconference due to convenience since the interviewee lived in a different city from the researcher. The interviews were focused but not limited to examining the practices during virtual choir such as the learning process, the interpersonal interaction among singers, the challenges, the adjustment, and approach used by conductors, and things related to empathy manifestation in virtual choir. The data collected during interviews were transcribed and analysed to identify the themes generated. This analysis process including data coding, code classification, code elimination, and data interpretation.

RESULTS
1. Choir continuity through virtual choir

The first theme elicited during the analysis is "choir cintinuity" that refered to any potential in maintaining the choir as a social group and a group of of musical activity. No matter the condition and circumstance, it is seen that maintaining the choir continuity is very important. This importance is emphasized through these statements:

> *"Rehearsal is the core of the organization (choir) so that this (the rehearsal) needs to be maintained. The singers come to the group for the rehearsal, everything else will come afterwards. Without any rehearsal, then nothing's left" (BSU)*

It is also said explicitly that virtual choir is an alternative for choir continuity, even it enables the group to rehearsal space for members of a choir that is out of the town:

> *"at least we keep singing together. The virtual choir provided us a space to do it, even it ables to gather the singers from other cities. You know, the perks of technology" (BSU)*

Nevertheless, this advantage of teleconference comes with its own challenges. The biggest one is the importance of continuity of the learning process may override the musical aspect of the singing in the first place:

> *"But, indeed, I can't force them with similar target as regular rehearsal. You know, it is hard for me to check, to control the voice production. The devices might be vary between singers. The (internet) connection, the environment of the singers, so many things that are not ideal. But again, it has to keep going" (BSU)*

2. Singers' behaviour as an impact of learning materials adjusment

The condition of virtual rehearsal is not easy for both conductors and singers. Hence, it is so common to find conductors and or coach to adjust and downgrade their learning materials to meet singers' condition:

> *"The online rehearsal can only accommodate small amount of singers to make sure it wont lead into any chaos. So that it is nearly impossible to focus on choral sound. But I think it is the time for me to focus on the individuals. Like I can go to the details to each singer, yaaa like a vocal course" (JFA)*
>
> *"They sing with MIDI as their guide, literally singing together with the MIDI that we prepared. It needs to be understood that by listening the MIDI, it is like dismissed the sight singing aspect. Usually, we visualise the pitch in our mind when we sight singing, now they refered to the guide. Not really sight singing" (BSU)*
>
> *"...and no target that is as high as usual. Im going with the bare minimum, as long as they are progressing. The standart. we negotiate. Usually, we refer to competition standart. Like fidelity to score is possible to do, but choral sound is another thing. Nearly impossible" (BSU)*
>
> *"Indeed, we can not work on choral sound and things around it. Blending, balancing, all the things that need collective singing to achieve is on another dimension when it comes to virtual choir (giggle). So that, we focused on individual singers…. Try to make them sound like similar, approximately similar." (JFA)*

The changes of learning materials and the goal in the virtual rehearsal is also seen to generate different behaviour and responses from the singers.

> *"it's so mind blowing to know my singers change the way they response to rehearsal and tasks. High-achieving and professional singers tend to be bored once they involved in two or three virtual projects. They tend to give and do the bare minimum. Maybe it's less challenging for them? But it is so different with student choir that are new to choir. I think they are interested and passionate to sing and record their voice and excited to listen to the final result (when their voices are compiled)." (BSU)*
>
> *"I think they become more independent. I mean, they are by themselves in their room when we are practicing. They have to take their own notes and listen to their own voice. It seemed to make them lesss dependend."*

3. Empathic ability and the alteration of social interaction

It might be predictable to find out that social interaction is the most affected aspect of virtual choir and this leads into some different conditions.

> *"Our singers sing in a smalll group, like, five people maximum. It makes them feel strange to the singers outside their small group. Even if we sing together in a virtual project. They seemed shy and awkward in our first meeting of live rehearsal" (JFA)*
>
> *"Indeed! They seemed awkward to each outher in our first offline meeting. Doesn't seem like they've been singing together in a various virtual choir project. But we have committee, in our choir team, to approach the members that seemd to be hideous and hard to mingle with others" (BSU)*

The social interaction in virtual scheme tends to work differently, espescially in the sense of Empathic Ability. Here is some statement under the context of live rehearsal as a comparison:

> *"To sing as a group, everything is done collectively. You can achieve the dynamic of forte by unting the singer's high energy or hold the volume together to achieve the piano dynamic. You can't achieve it by just one or two singers, it's not a work of individuals. Teamwork." (BSU)*
>
> *"They just accustomed to practice by themselves in the rehearsal break, like I don't need to ask them to do so. They simply want to do extra because they like it. Like, singing to practice the difficult part, try to make it easy, and helped each other during the rehearsal break, it was great." (JFA)*

Meanwhile, things become different once the singers don't interact in person:

> *"No, there is a team (that will help and approach if someone find any difficulties of practice), it's not the other singer itself" (BSU)*

The statement above showed that in the virtual scheme, there is a committee that is designed to identify and evalute singers' progress. This means that the move to help singers' difficulties is based on duty and task and not a move that is come generically based on concern. When we are talking about emphatic trait and the abilities around it, it will brinng us into the idea of facial expression and gestures recognition. The statements below will show how these two things appear during online rehearsal:

> *"At the first of our (online) rehearsal, it seems difficult for the singer to understand my gesture. I can understand it, to read the gesture in a monitor that might be not in a good resolution due to internet connection, or may be I'm not well portraited-proportionally, or simply because we don't really explore the gestural instruction durung online rehearsal? Or maybe they didn't know me long enough to understand*

me… but overall, it is difficult to conduct online. It is simply disproportionate" (BSU)

"the singers that knows me well, sing with me long enough, tend to know me.. my body gesture and facial expression better. Yeah, it is logical. But it is hard for the online singers who barely knows me, never see me in person, to follow my conducting once we rehears live" (JFA)

"Indeed, I'm using body gesture during the online rehearsal, just to help them imagine the voice production. It's part of the learning method. But it not the conducting in details." (JFA)

Further, the irony comes to the peak when technology override the role of social interaction in achieving sound production.

"It was the singers positioning and spacing that act as our approach in achieving choral sound. It is also create a kind of perception in their mind about their singing skill and their role in a choir to provide certain sound production. I mean, there is like a general understanding when you're in this position, you should support the singer in front of you, or listen the singer in another position" (BSU)

"It is hard to move together in virtual choir since we don't really sing together. The intonation, that's the only thing that is able to be chased. And maybe a little dynamic and some detail. But never more that that." (BSU)

"I facilitate them to acknowledge the team, that they are the part of the team. No particular social interaction that is arroused during online rehearsal, it is minimalistic, I guess. And indeed, we can't chase for the blending or balancing. Like we do the bare minimum" (JFA)

"it's audio editor now. No more positioning, no dominant role of my singer and me to control it (the sound production)" (BSU)

"Live rehearsal has the singer blocking, yet the virtual choir can simply mute unwanted voices" (JFA)

Here is some final statement that summarize the interviewees views on virtual choir after the harms and benefits:

"Nope, it's not ideal, I guess. The energy, I just don't feel I get the energy from the singers. I always think the energy of ther singers is what moves me, and I give them the energy, they give it back over and over during their performance and rehearsal. It is unreal in online rehearsal. It is different. But yes, it accomodates a more flexible rehearsal" (BSU)

"It's still a good opportunity to be more detail in voice lesson. I mean for the individuals. But it never the detail for a choir as a music activity. And yes, technology plays a big role" (JFA)

DISCUSSIONS

The choir is not only a place to sing and produce beautiful sounds but also a place to socialize and develop individuals' sense of social skills. The data showed the reduction of musical aspects in choir during an online rehearsal during the pandemic, such as the downgrade of lesson materials and musical targets, the inability to achieve a choral quality that used to be a standard, and even the role of technology that overrides the singing itself. To perceive a virtual choir and its online singing scheme as an alternative for choir continuity is a well-said point of view, especially when it can accommodate rehearsal for many singers and go beyond the location boundaries. Nevertheless, we need to be scrutiny when it comes to the missing experience of in-person socialization, interaction, and the group dynamic that is potent to promote specific social skills.

Some researchers may promote the role of Virtual Reality (VR) in promoting empathy (Bertrand et al., 2018; Rueda & Lara, 2020), but we need to understand that the virtual word in a virtual choir is different from the one in the virtual choir. Virtual reality technology requires the sense of being in a different place that specific sensory experiences can support. The virtual choir is more of a multimodal creative production emphasizing methodology and form of choral performance (Bendall, 2020).

By observing the virtual choir and online rehearsal, we can see how it reduced many aspects of social interaction. Thus, we must rethink how it can alter the singers' emotional and social aspects in enhancing their musical practice. The internet connection, the diverse device being used, and the environment of the singers have been mentioned to be reasons behind the adjustment and downgrade of learning materials. Even though it is said that by reducing and adjusting the learning materials, we can focus on individuals development, it is still important to attribute the singers with a skill that is essential in choir singing: the ability to understand individuals' roles proportionately during the choir singing (Sublett, 2009). This understanding may lead them to use the proper way of singing and increase individuals' sensitivity to musical aspects, which is also beneficial in moving them as a team (Bailey & Davidson, 2002; Ferrell, 2010; Müller & Lindenberger, 2011). The choir's spirit as a social team will gradually be missing when this important aspect of singing together is neglected.

Wardani (2019) showed in her research that the achievement of musical aspects and the enhancement of social skills is reciprocal and that both need to be the focus of the activity. It is also mentioned that voice adjustment is part of empathic listening and is important to achieve the blending and balancing of a choir. Now that the virtual choir provides a big space for the technology to play this role, it must be observed. Previously, singers needed to listen consciously to how they and their surroundings sounded. It can be a skill to train both their hearing musically and their listening empathically. The missing opportunities to do this practice result

from technology that easily offers "panning" to provide a balanced sound as desired by the music director. In more detail work, the audio editor can correct the intonation or mute the unwanted voices. It needs to be considered that with the sophistication of technology, the prominent role of the human in choir singing can easily be replaced or at least be reduced, and with the big probability of action that audio editors own, is it too exaggerated to address the choir competition as the competition between editors and not the choir or musician itself?

The unique characteristic of any musical group activity is the individuals and their interaction that generate social dynamics with its advantage and disadvantage for the music itself. The genuine interaction in a choir that employs understanding, perspective-taking, and mind-reading is why the choir is assumed to promote empathic skills in individuals. Meanwhile, in the virtual scheme, BSU mentioned that the interaction of individuals is more like a duty and task instead of a natural concern, such as what the committee does to the singers in difficulties. Regular rehearsal may also have an organized mechanism with a committee to identify and help singers with musical problems. However, in a more natural setting, another singer may interact related to these difficulties and problem-solving based on teamwork.

Based on the data and literature, we need to reconsider the virtual choir as a choir when we also project social skills as an important part of musical activity. The virtual choir might be erased the space for advanced training in facial expression and body gesture understanding when it is said to be prominent in singing and empathic enhancement (Fuelberth, 2004; Goldstein & Winner, 2012; Gonzo, 1977; Hoffman, 2008; Zahavi, 2010). Here we can conclude that virtual choir might be beneficial as an alternative for choir continuity and activity during a pandemic. However, it will never be the same as the live choir rehearsal because it can provide social space to enhance social skills.

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