Research Article

Making a Difference with Music Psychology Research: Strategy, Serendipity, and Surviving a Global Pandemic

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Abstract

The COVID-19 pandemic has forced researchers around the globe in every discipline imaginable into a position, where they have to provide justification for the relevance of their work. This represents a sharp acceleration in an underlying trend toward demonstrating greater impact for research, as evidenced in the UK by assessments such as Pathways to Impact statements in grant applications and Research Excellence Framework (REF) Impact Case Studies. Music psychology is ideally positioned at the nexus of a number of different larger fields to afford strategic relevance of some kind, and some work is more obviously placed to do so, such as the many intervention projects harnessing instrumental benefits of music which are explicitly designed to improve people's lives. However, I argue that the fundamental power of music (in and of itself as well as in other areas) provides everyone in the field with inherent potential impact. Using the case study of a recent project, I am leading on people's favorite music choices, which turned into something of value to many of its participants almost overnight, I illustrate how serendipity can be developed into strategy. Drawing on insights from analysis of people's accounts of their favorite music, I show how the fundamental premise that music matters to people gives music psychology research a head start in its quest for relevance, placing this in wider debates about the relevance of music, the arts, and culture to post-COVID-19 life.

This paper stems from a keynote presentation I gave at the SEMPRE conference in September 2020 on *The role of music psychology research in a complex world: Implications, applications, and debates*. As such it is a personal account of my own perspectives and experiences intertwined with those of others, reflecting on these experiences in the wider context of an increased focus on impact and applicability in research in general and also in the immediate frame of the COVID-19 global pandemic which has had some fundamental impact of its own. From a consideration of the wider impact agenda and the current place of music psychology, I draw on a case study of research conducted over the past 12 months and use this to draw out more general points for the future development of the discipline.

Making a Difference: The Impact Agenda

The general trend toward justifying one's salary and resource as an academic researcher is wrapped up in the

impact agenda (Holbrook, 2017; Penfield et al., 2014). In addition to making a difference *within* academia, as evidenced and now assessed by factors such as the number of publications, citations, and the impact factor of the journal's work is published in (Chapman et al., 2019), there is an emphasis on demonstrating impact *outside* academia. In the UK, research councils require prospective grant holders to demonstrate that their research will make a difference: this agenda has been increasing over past years with an eye on justifying resources. The national Research Excellence Framework (REF) assessment in the UK included, in 2014, a requirement to capture impact,

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defined as "an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia" (REF2014, 2011), and universities were required to submit impact case studies documenting and demonstrating this impact (summarized in HEFCE, 2015, and detailed at https://impact.ref.ac.uk/casestudies/). This agenda is mirrored elsewhere: research impact is one of the three core values of the European funding programs (van der Akker & Spaapen, 2017), and in the US National Science Foundation "broader impacts of proposed research" are also required alongside "intellectual merit" (Holbrook, 2012).

It has been argued that both impact and engagement are rooted in neoliberalism (Holbrook, 2017), and critics have claimed that the competitive regulatory mechanisms of impact criteria in funding decisions are damaging to academic freedom from interference (Allen, 2014; Holbrook, 2017). Indeed, the REF impact agenda has been described as a "Frankenstein monster" (Martin, 2011), and the pressures of evaluation of research have been cited as devaluing "blue skies" research and discouraging researchers from work where no clear external impact is predicted (Kelly & McNicoll, 2011). Furthermore, even embedded in the UK REF, there are competing pressures, with research of substantial theoretical importance also being prioritized: such work does not sit easily alongside research with external impact (Kelly & McNicoll, 2011). Nonetheless, many funders, universities, and researchers have adopted this agenda to provide justification for their activities, following a broad moral imperative to make research accessible or usable. This also aligns with the Knowledge Exchange agenda which has more recently set out guidelines and assessment criteria for external engagement with research findings (Johnson, 2020; https://kef.ac.uk/).

In the light of this context, what can or should we be doing in research as music psychologists? How far does the impact agenda influence what we can achieve, and how does it affect the development of the field?

What Music Psychology Is

Music itself plays a central part of everyday life from before birth to old age in every known culture (Blacking, 1969). While there have been debates over whether music can have any utility beyond aesthetic pleasure, prompted by Pinker's famous description of music as "auditory cheesecake" (1997), empirical evidence is converging from a range of perspectives that music does have a considerable impact on human life and may be fundamental in the development of culture and society (e.g., Schulkin & Raglan, 2014). Thus, the topic matter puts music psychologists at a clear advantage when thinking about the potential impact of their work.

To understand the role and the impact of music on people, contemporary music psychology has brought together a range of different core disciplines, including music history, musicology, music analysis, ethnomusicology, music education, psychology, and music therapy. More recently, it has touched on wider fields such as neuroscience, sociology, philosophy, economics, and health. In a review of the published output in the journal *Music Perception* from 1983 to 2010, Tirovolas and Levitin (2011) identify authors coming from the disciplines of music, psychology, neuroscience, technology/computer science, and cognitive science. The most highly cited work spanned a range of topics including meter, pulse, tempo and timing, tonality, musical structure, and emotion, and included one article on birdsong among the remainder of articles about human perception and cognition. More recently, Anglada-Tort and Sanfilippo (2019) reviewed a broader selection of 2,089 peer-reviewed articles in the three major journals in the field, *Psychology of Music*, *Music Perception*, and *Musicae Scientiae* from 1973 to 2017. In addition to a steady increase in the amount of research, their analysis also provided an indication of the key topics from 2005 to 2017 (when keywords were available).

This shows a great breadth of topics including rhythm and pitch, creativity and improvisation, music training and performance, motivation, music therapy, preferences, well-being, everyday life, background music, emotion, and mood regulation. The field thus has the potential to connect with a broad range of audiences and potential beneficiaries. The importance of music to humans and the multidisciplinary position of music psychology provide excellent starting points for the ability to connect with and generate research of relevance to a range of audiences both within and beyond the academy.

What Music Psychology Can Be

To provide some framework for thinking about impact, I refer to Sloboda's call to action begun in a conference paper given in 2004 and further articulated in press a year later (2005a, available online). Sloboda challenged the research community at the time, before the impact agenda had really taken hold, to think about the relevance of their work. His challenge was simple yet provocative:

> "suppose all the music psychology in the world had never been written, and was expunged from the collective memory of the world, as if it had never existed, how would music and musicians be disadvantaged? Would composers compose less good music, would performers cease to perform so well, would those who enjoy listening to it enjoy it any less richly?" (Sloboda, 2005a, p. 395).

Reviewing the field, Sloboda (2005a) searched for research on the social benefits of music using the CAIRSS and PsycINFO databases. It may surprise readers now to discover that there were only 14 articles for the period 1983–2003, covering the topics of care of the elderly, child development and education, and

therapy. Following Sloboda's approach and repeating this review from 2003 to 2021, a search of PsycINFO alone returns 441 articles in peer-reviewed journals. These cover a very wide range of topics including those mentioned in the preceding period but also an emphasis on health-related areas (e.g., social prescribing, stroke, dementia, Parkinson's disease, depression, mental health, and well-being), neurological benefits, studies of people in disadvantage, special education, prejudice, and criminal justice. If social benefit is a guiding principle, the field has clearly expanded during the past two decades.

Sloboda (2005a) also provided an in-depth and personal evaluation of the privileged situation of the music psychology researcher and the social responsibility this brings. While his account is based on his own biography and the intertwining of events in world politics such as the ending of the Cold War, the Aids crisis, and the Iraq War, he provides a typology that describes four successive levels of social engagement which can apply to all in relation to what he terms the social good of research. Level 1 is a sensitivity to the historic and accepted academic norms that research makes a contribution, that research activity should be conducted with integrity and according to ethical norms about the treatment of participants, that knowledge should be public, and that researchers should communicate their work freely and publicly. Level 2 is described as a sensitivity to applicability, encompassing work that has practical or policy implications and where the researcher takes steps to explore, develop, or promote that applicability. Level 3 is a more integrated focus on applicability, whereby the research is explicitly designed to have practical or policy applications through the choice of topics and is often developed as well as conducted with the involvement of appropriate beneficiaries (such as patient groups or industry). Finally, Level 4 is characterized by a focus on core values as a guiding principle for research, where the social good is given a higher priority than applicability per se.

There has been a rapid acceleration in the impact agenda and an ever-changing social, historical, and political environment, but these levels of focus are still highly relevant when thinking about the range of research taking place in music psychology today. Research has definitely moved on from Sloboda's statement in 2005 that "few University researchers are explicitly encouraged to put social benefit at the top of their work agendas". Looking from the outside, it is harder to infer whether impactful research is best described as at Levels 3 or 4, as the personal agendas and values of the researchers are not typically shared in public. However, there is a great deal of new research in music psychology and music science which can be characterized as at least at Level 3: applicability in terms of choice of research, and to projects which we can characterize as of significant social value. Many projects are now designed and directed to be of benefit to specific targeted populations (those with health conditions, the homeless, those with learning difficulties, and so on),

often with user groups from these populations involved from the outset. To give just a few illustrative examples, Mantie-Kozlowski et al. (2018) studied enjoyment in singing groups for five people with aphasia and their caregivers, finding high enjoyment levels, a preference for singing familiar music and singing songs with words, and lowered stress in caregivers. Reimnitz and Silverman (2020) explored preferred music listening in adult oncology patients, finding symptomatic relief through music listening due to emotional release and aesthetic pleasure. Work of this kind in the current special issue includes Barradas et al.'s (2021) study of emotional responses to music in people with dementia. These selective examples serve to illustrate how projects can be designed to make a difference, with outcomes of direct relevance for the targeted populations and also those in similar situations.

As well as explicitly applicable research of the types outlined above, there is also much in the recent review of social benefit research that can be characterized at Level 2: projects which seem intended to explore a research area rigorously and robustly but also generating outcomes that have applicability. For instance, studies of music and exercise (e.g., Plante et al., 2011) show how the social context of exercise (including music, with a friend, alone, indoors, or outdoors) affects students' mood, enjoyment, and psychological function. These findings have clear potential benefits for a range of applied fields, as the authors highlight, where enhancing exercise could have a dramatic impact on health outcomes such as cancer, obesity, and other life-threatening illnesses. Rosenberg et al. (2021) explored connections between childhood trauma, music listening, and personality, finding subtle differences in the ways men and women used music and the effects it had on well-being: this has clinically relevant outcomes for developing music-based coping strategies in mental health. Similarly, finding out more about amateur musicians and their levels of well-being (e.g., Lamont & Ranaweera, 2019) provides useful information that can be applied by those running music groups and teaching music to children and adults in order that initiatives can be more carefully targeted and designed.

In addition, although not found in a search for "social impact", there is much valuable scientific inquiry focused on Level 1, and in particular, the move toward open research and an enhanced emphasis on integrity and reproducibility is making its own valuable contribution to the rigor of the discipline (Eerola, 2018; Jensenius, 2020). As such standards become commonplace and accepted, the quality of work in more applied fields also rises, and its ability to convince audiences is also enhanced. In a curiously democratized climate where everyone is now an expert, adhering to high standards of academic integrity becomes one way to distinguish researchers from armchair commentators, and this work is fundamental for the future of the discipline.

In the rest of this paper, I develop an argument about the importance of considering research practice from the

ground up, starting with fundamental ethical questions and in particular, looking at how research might be moved onwards in the (social) impact agenda. I do so by using my own project adapted under COVID-19 and share thoughts behind decisions made as well as providing an overview of the project and some preliminary findings.

Serendipity, Strategy, and Surviving a Global Pandemic

The research project I use to illustrate how music psychology researchers might navigate the impact agenda draws on a trajectory of my own work on music preferences, conducted on my own as well as with many others. Over the last 15 years, I have been adopting a mainly qualitative approach to understand what music people like and what it means to them (e.g., Greasley et al., 2013; Lamont & Webb, 2010; Sanfilippo et al., 2020), what people's most significant musical experiences are and why (Lamont, 2011), and how preferred music can help in applied contexts such as exercise (Hallett & Lamont, 2019).

I was about to begin a period of research leave which was intended to be spent looking at musical memories as a way into music preference through a series of detailed experimental studies, following up on work done in the previous 2 years (Lamont & Crich, 2021). The additional funds to support this series of studies through research salary and participant payments were unfortunately not forthcoming, and so I had to turn to a Plan B: what could be done with my academic time without additional external funding?

Plan B began prior to COVID-19 as an in-person study of members of the public's favorite music along the lines of the BBC radio program *Desert Island Discs*, familiar to many music fans and Radio 4 listeners in the United Kingdom (Magee, 2012). The program, which has been running since the 1940s, is based around the premise that guests are invited to imagine they are being cast away to a desert island. They preselect eight pieces of music to take with them, and are then interviewed about their life story and their music choices in a narrative life history interview. Celebrity guests are chosen from all walks of life, and the interviews shed light on their personal lives, the importance of key events, and the relevance of their music choices.

The BBC has created an archive of the program with details of the guests and their choices from 1942 onwards and audio recordings of the programs themselves from the 1980s (BBC, undated). While there can be limitations to the credibility of public-facing narratives (e.g., Littler, 2017), this resource nonetheless provides a rich source of data on the highly personal nature of people's relationships with music (Brown et al., 2017), and has also inspired a few music-psychological studies. Knox and MacDonald (2017) explored the music chosen across the entire span of the

program in relation to the personality of the celebrity, measured by proxy in relation to their occupation type. Using machine coding, they were able to identify some trends in chosen music, such as a preference for sophisticated music found by more artistic occupations and a preference for unpretentious and contemporary music by more socially oriented occupations. At a more individual level, Loveday et al. (2020) explored a selection of 80 interviews looking at the connections between personally relevant music and the self-defining period in autobiographical memory. They found that half of the music choices dated to between 10 and 30 years of age, with songs most often linked to memories of a person, period, or place. Their findings provide important confirmation of the importance of identity in social development, and of the longevity of memories around music across the lifespan.

I had already begun my own exploration of this archive looking at what it could highlight about music preferences (Lamont et al., 2018), and Loveday and I have articulated the similarities and differences between our memory and preference perspectives on this dataset in an earlier paper (Lamont & Loveday, 2020). My intention was to continue the Desert Island Discs study by interviewing members of the public about their own eight favorite pieces of music and their life stories. Prompted by conversations with prospective participants who said they had their own list ready to go, I had anticipated that these conversations would be pleasant and engaging ways into music preferences that would shed light on influences, the emotions music evokes, and what kind of music different people chose. Using Sloboda's categorization of impact, this study was theoretically grounded and based on existing literature, and I hoped it would have a Level 2 outcome in that it might shed light on elements of musical preference which would have implications for people working in more applied areas.

The Impact of COVID-19

The COVID-19 pandemic has fundamentally changed many aspects of life, but its impact on research has been dramatic (Corbera et al., 2020). Research priorities around the world have sharply shifted toward the applied and utilitarian, and the pace of such research has also quickened (Dinis-Oliviera, 2020). At what was originally set as the highest level of lockdown at my own institution in the second quarter of 2020, *only* COVID-19-related research was permitted to take place. As restrictions eased they did so in relation to the extent to which they were "critical", with funded critical research on other topics allowed first, followed by funded *or* critical research.

This has led to a proliferation of COVID-19-related funding opportunities and research studies, with many researchers looking creatively at how they could apply their knowledge, skills, theories, and approaches to what is arguably the second most urgent (after climate change) but certainly the most immediately impactful social and

political priority of our times. Studies have sprung up around not only the science of the virus (and in music, issues such as aerosol transmission in rehearsal spaces, e.g., Mürbe et al., 2021) but also from a more human perspective on attitudes toward vaccination (Sherman et al., 2020), studies of social isolation and loneliness (Banerjee & Rai, 2020; Williams et al., 2020) and, more recently, work looking at more adaptive coping strategies for dealing with COVID-19 such as gratitude (Jans-Beken, 2021) or spirituality (Kang et al., 2020). In music psychology, many researchers have pivoted toward COVID-19-related projects, gathering data on many aspects of the role of music during the pandemic. A MUSICOVID international research network sprang up in April 2020 with an initial event in May 2020 including around 250 network members, and this has led to a Frontiers Research Topic on the role of music during the COVID-19 pandemic (Hansen et al., 2021b), with 43 articles accepted to date covering topics such as the pandemic's impact on arts professionals, online improvisation and singing, parenting and caregiving. Some of this research has focused on topics, including the emotional impact of COVID-19 on music choices and connections to music related to the current project, such as Krause et al.'s (2021) study of music listening improving life satisfaction at the start of the pandemic, or Yeung's (2020) study finding nostalgia affected Spotify listening habits under lockdown.

Returning to my own proposed research, I found myself in a situation that will be familiar to many researchers, particularly those engaged in doctoral or funded research under time pressure, needing to adapt my study to the new research environment and reconsider the entire project from the ground up. Crisis often forces a re-evaluation, and this was a substantial one. The first and most pressing issue was ethics at Level 1. What, if anything, could a music psychologist do in a global pandemic? Was it ethically responsible to ask people struggling with lockdown, illness, and caring responsibilities to actually take part in what initially seemed like a frivolous piece of research? As Jowett put it (2020), "researchers should consider whether asking people to participate in research at this time will put them under any additional unnecessary stress". To spend my time usefully and contribute something of value involved a radical rethink.

In addition to my own work on the emotional significance of musical experiences and memories (e.g., Lamont, 2011), over the 2010s, several researchers had been highlighting the multiple benefits of engagement with music listening[1]. An increasing focus on the functions of music listening was becoming clear, stemming from early work by Juslin and Laukka (2004). T. Schäfer and Sedlmeier (2009) highlighted the importance of mood, arousal, and emotional benefits, and Groarke and Hogan (2016) illustrated how younger adult listeners emphasized mood regulation and social connection while older listeners emphasized transcendence and personal growth as the most important outcomes. In particular, research was illustrating that when people experienced distress they often sought solace in music (Garrido & Schubert, 2011, Skånland, 2013, Taruffi & Koelsch, 2014, Van den Tol & Edwards, 2011).

A key influence in my rethinking was Schäfer and colleagues' investigations of music as social surrogacy. In an attitude study (K. Schäfer & Eerola, 2020), they found music was felt to be a temporary substitute for social interaction through the process of evoking memories of either time or place (cf. Loveday et al., 2020). In an experimental approach (K. Schäfer et al., 2020), they found that music listening (to either comforting or distracting music, but importantly chosen by the participants) reduced loneliness and enhanced empathy.

This evidence prior to the pandemic that music listening could serve an important role of comfort and solace in challenging times provided the impetus for a rethinking of the original interview project about favorite music which would not only address Level 1 ethical principles, but move further on in terms of giving something valuable to people dealing with challenging situations. The pandemic-enforced lockdown in 2020 provided such an opportunity to not only gather important data on how listeners were using and responding to their favorite music, but also provide them with a potentially beneficial resource in the toolkit. In the original *Desert Island Discs* interviews, a researcher would visit the guest in advance to gather their chosen favorite records and essentially plan out the interview, including agreeing on the topics to be covered. The process of identifying eight favorite pieces of music might not be straightforward, and this allowed guests time to make considered choices. I had already intended to ask for some advance preparation on the part of my participants in choosing their music, so it was a relatively simple step to reframe the work entirely and provide the materials to allow participants to carry out the entire process in their own time.

Another important addition to the project emerged from developing the do-it-yourself toolkit. On the BBC program, guests are interviewed for approximately 45 min and, as first introduced by Kirsty Young in the 2000s, a short clip of each track is played to them during the interview. Guests sometimes provide immediate responses to the music during the interview. The challenge of asking people about music listening situations has been a long-standing one in music psychology research. Typically, in-depth interviews ask people to reflect back on their experiences at some considerable distance from the event (Rubin & Rubin, 2012), and many interview or focus group studies about music follow this approach (e.g., Saarikallio & Erkkilä, 2007; T. Schäfer et al., 2014; van den Tol & Edwards, 2011). Some research has adopted different techniques to try to circumvent this. For instance, in our interview study of favorite music and people's music collections (Greasley et al.,

2013), participants were interviewed at home and invited to play the music they were talking about. Similarly, Sanfilippo et al. (2020) asked people to shuffle their iPod or other listening device and play the results before reflecting on what the music meant to them. Leaving participants to work through a toolkit in their own time allowed me to invite participants to actively engage with their own music. Rather than just reflecting on the eight pieces, they were asked to actually play them and then give a written response, akin to the solicited diary technique described by Meth (2017). This additional element both enhanced the research findings in terms of accessing hitherto challenging kinds of data and also provided a resource: a listening toolkit that would most likely evoke a sense of nostalgia, connection, and comfort for participants.

The International Dimension

Another change in working habits that has emerged through the pandemic is the ease with which we now communicate online. Setting up an international team would have seemed a daunting task prior to the pandemic, with the need to coordinate diaries, technology, and resources. However, in serendipity, I had an Italian intern working with me on an Erasmus-funded project in early 2020 and since we could not pursue this research which required face-to-face contact, we diverted the project to generating an Italian language version of the study. Talking about the project with colleagues and having launched it in English and Italian, it became clear that there was demand for a Spanish language version, and I was able to recruit a willing academic researcher to support this, and a team of Greek research colleagues and friends volunteered to create a Greek language version. It felt like a long way from the small Plan B sabbatical project, but I have been extremely grateful for the input and support of the team (Catherine Loveday, Liila Taruffi, Benedetta Sbrollini, Amalia Casas-Mas, Christina Anagnostopoulou, Christiana Adamopoulou, Katerina Drakoulaki, Angeliki Triantafyllaki, Joy Vamvakaris, and Tasos Mavrolampados).

Figure 1. Desert Island image used for promotion (Source: image by Hoobychubes from Pixabay).

The Desert Island Discs Toolkit

Due to the international nature of the project, no assumptions could be made that potential participants would know about the BBC's *Desert Island Discs* program. Thus, participants were given a brief explanation of the premise behind the original program and asked to imagine themselves in the same situation of being cast away on a desert island with only eight pieces of music (as well as a book and a luxury). Figure 1 shows a visual representation of the island scenario used for promotion. The toolkit was developed to structure the phases of engagement and to be offered in as flexible a manner as possible. Two different versions were produced: a Word file for participants to complete offline, or a series of 10 interlinked Qualtrics surveys to follow through the steps. The first step was a preparation phase: participants were asked to identify their eight favorite pieces of music, and if responding online, to also give some background demographic data. Following this came a listening and reflecting phase, where they were asked to take each of the eight pieces, in turn, listen to it, reflect on its importance, and describe this in text form: "why is it important to you?". After the eight pieces came a final reflection, where participants were asked to look back over the listening experience, talk briefly about their own life story to provide context, and following the format of the BBC program, to select a book and a luxury to take with them as well as choosing their favorite from the eight pieces. Finally, participants were asked to reflect on the desert island scenario and, if relevant, compare it to lockdown.

As noted earlier, one major advantage to this in contrast to the original design was the addition of the listening step in the central phase of the research. This allowed participants time to reflect and to explore any well-being benefits, as well as to listen to as much of the music as they wanted (which might be an entire symphony or opera). Other advantages were that participants were free to complete the study as quickly or slowly as they wished, and the flexibility in the mode of presentation was also helpful to meet different levels of technical competence and access to the Internet. The final benefit from a research perspective was that once submitted, after joining up participants' responses from each step of the online study, data were ready for analysis without requiring a long process of transcription.

Promotion and Recruitment

Social isolation in the early stages of lockdowns across the world in spring 2020 was at a relatively high level (Williams et al., 2020), and thus we decided to create some appealing recruitment materials to support this study. In addition to the main project webpage (www. instrumentaljourneys.com/diy-desert-island-discs), which contained a detailed description of what the study required as well as links to the different language versions, we generated videos in each of the four languages to be used on the

website and on social media (Facebook and Twitter). Each short video consisted of a member of the research team speaking directly to potential participants, inviting them to take the opportunity to reflect on their favorite music in a rewarding setting while also contributing to our research. Without excessive prompting, participants were reminded that music can provide comfort and solace particularly in times of challenge.

The team promoted the study to their own contacts, colleagues, students, friends, and family through direct word of mouth and also through advertising on social media. The project videos were also boosted by paid advertising on Facebook to targeted populations (e.g., people in large cities in the UK, USA, and Australia with substantial populations of both English and other language speakers such as Melbourne, Australia (large Greek population) as well as people in Italy, Spain, and South America) over 6 weeks between April and May 2020. These proved extremely successful in reaching a large number of people. From a small budget of £400, our video promotion was presented to almost a quarter of a million people (248,821), with over 60,000 (60,715) people choosing to play through the videos. Over 90,000 people were presented with our posts (including images and text), while nearly 2,500 (2,442) clicked through to our website to find out more about the study.

A Facebook project page was set up for the research, with the intention that this would provide a space for participants to connect with one another and share stories of their favorite music. Unfortunately, this did not prove popular, as it seemed that people preferred to keep their stories private between themselves and the research team. The same fate befell the Twitter hashtag #DIYDesertIslandDiscs as Twitter was overwhelmed with COVID-19-related information and also other competing activities. For example, the BBC launched their own Desert Island Discs for the public in May 2020, gathering information used in a public program featuring NHS workers broadcast on June 5, 2020 and leaving #DesertIslandDiscsChallenge as a lasting hashtag for people to compile and share their eight-track listing and luxury (which also did not attract a great deal of interest).

Engaging the Public in Music Psychology Research During COVID-19

Engagement with the study over the first 12 months can be seen in Table 1. The project idea generated a lot of interest internationally, but the numbers of completions were relatively small, with dropout at different stages. The vast majority of participants completed the study in the first few months after launch, that is, during the first COVID-19 lockdown of 2020.

Different reasons can be identified for the levels of attrition shown here. First, life has become more pressured under COVID-19. While some people are working comfortably from home, many have had additional stressors such as childcare (Adams et al., 2021), caring for sick relatives and the elderly (Carers UK, 2020), and illness and ongoing health complications of their own (Davis et al., 2021). The transition to online working has added demands to most people's working lives (Oakman et al., 2020), people are experiencing high levels of mental distress (Novotny et al., 2020), and for some unemployment has created serious financial and emotional pressures (Posel et al., 2021). Thus while interest in the study was high, as illustrated by a large number of clicks and views, the percentage of people following through to the project website was considerably smaller, and attrition also continued throughout the study itself.

Second, choosing eight pieces of music is not a simple task. Previous research in this area has found people either find the task limiting, having difficulty narrowing their list down to eight, or overwhelming in that finding eight pieces is difficult (Loveday, personal communication). In the current data, very few people named all eight tracks and then failed to continue with the study (1 for English, 0 for Italian, 1 for Spanish, 2 for Greek) and thus almost all the attrition occurred prior to people naming any tracks at all, suggesting that this step can be challenging for some.

Third, the percentage of people who did not complete the study online after having selected their eight tracks (overall dropout of 54%) indicates that the sustained nature of listening to and writing about one's favorite music also places a demand on participants. From an ethical perspective of not wanting to bother our participants at a difficult time, we committed to just one follow-up email between phases 1 and 2, sent about 2 weeks after phase 1 had been completed if no listening entries were submitted. Furthermore, we have no knowledge about when exactly those participants who downloaded the Word version of the study but did not return it (95%) dropped out. One final issue to consider is that we did not have any budget to pay our participants, so were dependent on intrinsic interest in the study to recruit and sustain participation. However, given the commitment of time required to complete the tasks and the reflective nature of the study itself, payment might not have been desirable as it might have skewed the outcomes.

One advantage of online modes of delivery is that the time participants spend on a study can be tracked. However, given our prior knowledge that the selection of pieces might take some considerable time, we advised participants to spend time thinking about their pieces prior to starting the phase 1 survey, so it is not possible for us to track the time taken on that task. Furthermore, looking at the time participants spent online doing the preparation phase, it is clear that some people left their browsers open and went on to other tasks, perhaps interspersing our study with work or other responsibilities, as the average time taken for

Table 1. Engagement with the DIY Desert Island Discs research study from April 2020 to April 2021.

	Social media reach	Social media engagement	Visits to website	Started preparation	Downloaded Word version	Completed Word version	Completed preparation online	Completed all phases online	Total completed
English	52,548	8,177	7,386	720	194	11	132	55	66
Italian	83,880	5,067	1,748	95	23	0	22	10	10
Spanish	174,170	51,281	2,822	271	70	2	47	19	21
Greek	60,264	5,701	1,447	188	47	3	60	37	40
Total	370,862	70,226	13,403	1,274	334	16	261	121	137

English participants on the preparation phase was 11 h 26 min. Similarly, the separate listening phase might have involved people listening and reflecting prior to accessing the survey, so it is not possible to know exactly how much time the study took.

Preliminary Results

To date, we have completed a first analytic pass on the English data. The primary objective of this paper was not to present results from the research, but a few key points can be summarized thus far with a focus on the evaluation of the overall approach. I recruited a team of volunteer master's students to work on the data and we completed an inductive thematic analysis of the responses to the eight tracks and the justifications for the final choice of music. Results here focus on the types of response and other aspects of the data that shed light on the design and overall approach. All quotes below are either referred to by pseudonyms or participants' own choice of first name.

Our analysis highlights at least two different ways of engaging with the task at hand. One was to provide a thorough description of the importance of the specific music chosen, often with reference to other artists, music history, and the development of various traditions. For example, Alejandro (male, 42) described memories of his first track in musical context: "I must have heard this song for the first time in the ChangesBowie greatest hits collections but for me it makes much more sense in the context of the Low album". Another was to approach the task with a greater emphasis on the participant's own life story and to talk about personal connections and autobiographical memory. These descriptions often referred to periods of life, particularly adolescence. For instance, Sarah (female, 54) made specific reference to being a teenager in three of her eight choices: "I bought this single as a teenager", "it takes me right back to my teenage years", and "another one that I listened to endlessly as a teenager".

While the more technical respondents tended to use more words in their responses, both approaches also tend to generate a considerable amount of information about the emotions the music evoked and had evoked. They included different elements of emotion that resonate with

Juslin's (2013) proposed mechanisms by which music evokes emotion. Music was described as evoking memories of other people but also of places and imagery, such as "England in times past" (Sarah, female, 54) or "strolling anxiously through a park in the city" (Alejandro, male, 42). Emotions were often extreme, such as "scary, orgasmic, overwhelming, exhilarating" (Alejandro, male, 42), and often mixed, such as "devastatingly sad, but also so emotional and hopeful and everything in between" (Julia, female, 24).

Repetition was key to much of the music chosen for the study, and music was intertwined with autobiographical memories as well as having its own personal history. For instance, Julia (female, 24) talked about a Green Day song that she first heard as a 14-year old from a recording, then at a live concert, then sung at a school performance, summing up with "there are few songs I have this close a history with". Phrases such as "obsession" occur throughout the data, and lyrics are often mentioned as speaking directly to the participant.

Discovery was a key part of many accounts: participants recalled how they had first heard of particular music or artists and who had introduced them. Kiki (female, 39) summed one of her choices up as "I like it more because my partner was the one who discovered it for me". Participants also referred to knowledge about the music which had enhanced their appreciation. "Looking for stuff beyond the more trad things" is how Alejandro (male, 42) described his encounter with Ornette Coleman. Related to this, the importance of "proper" appreciation recurred throughout the data. This seems to reflect an implicit belief that engaging with music is a serious matter, and must be carefully justified. These elements are resonant of the perceived importance of knowing *about* music (T. Schäfer & Sedlmeier, 2009).

Of importance for considering the usability of the toolkit, some participants talked about the difficulties of making choices. Jackie (female, 49), when asked to choose her single favorite piece, noted:

"I really struggled to get down to 8 songs—my initial list was humungous! Choosing just one is almost impossible. Or maybe actually impossible. For the sake of giving you an answer, I'll say… But if you ask me tomorrow, I know I'll have changed my mind".

From an analytic perspective; however, it was often relatively easy to anticipate which track a participant would nominate. It was often the first choice on the list of eight, or the one that contained the most variety of connections. Some participants were very clear about their final choice (although of course it is possible that they spent time thinking about the question without reporting on their difficulty). For instance, James (male, 57) summed this up well with the explanation of his single choice: "for the wealth of associations, the comfort of hearing the human voice, and the sheer beauty of the music".

Finally, most participants referred to the desert island as quite a different scenario from the COVID-19 lockdown. For example, Julia referred to being "lucky" that she was with her family in lockdown, noting "I suspect I wouldn't be in a great place mentally if I was completely on my own right now". This question seemed to provide participants with an opportunity to compare their current situation to a more extreme one where they were separated from important friends and family, and where they would not have access to their creature comforts such as music. Rich (male, 39) described this well: "Lockdown hasn't really been a 'desert island' experience for me as (at the moment at least) I'm healthy, still getting paid and I've got internet access and, perhaps most importantly, music". While other participants referred to stress through being cooped up with family, most of the participants had a generally positive or adaptive attitude toward the COVID-19 lockdown which may explain why they continued through to the end of the study. Furthermore, in answering this question, several participants highlighted the importance of music and their memories, which provide corroboration of the value of music and memory as exemplified in the toolkit. Jemma (female, 40) noted that on a desert island "memories (and the music to help me with remembering loved ones, etc.) would definitely be very important", Becky (female, 47) noted "I've always used music as a coping mechanism … I need music to motivate and do things … music helps to calm me down and focus", and Dave (male, 41) explained how he would handle isolation:

> "If lockdown has been any guide, then my time in isolation would be reasonable at first before any extremes of emotion and mental health. However, I have had the luxury of Zooms, messaging, a great deal of work to occupy my thoughts, and more quality time with one of my best friends and my love. The songs chosen would act as good triggers for memories and feelings, allowing me to reset my self and (together with my book) maintain my perspectives and humour."

Implications from the Case Study

Through reflecting on how I moved this project from a research idea to a fully-fledged toolkit under COVID-19, I hope to have illustrated some of the important potential impacts of music psychology research in a post-2020 world. I bring these points together in this final section.

The first and most obvious point is that it is possible to continue researching human experiences with music at a distance. Online techniques make it possible to engage with participants remotely without ever meeting them. Many researchers have been gathering data online over the past 15 years, supported by online research hosting systems such as Amazon's Mechanical Turk and Prolific Academic (Armitage, 2019) and by social media as a way of promoting studies to a more general audience. These techniques have allowed researchers to gain access to very large samples (e.g., over 4,000 adults directly participated in Bonneville-Roussy et al.'s listening study in 2017). Such an approach is also suited to more reflective qualitative data, particularly as people are now accustomed to spending time in front of a computer and blogging or communicating through text (cf. van den Tol & Edwards, 2011). Fully running an in-depth research study online requires a detailed set of resources, and recommendations include setting up a comprehensive project website where information can be downloaded, video materials to talk directly to the potential participants to engage them with the study, and a very tightly curated set of instructions. We worked carefully in this project to engage our listeners through these digital means, and we can assume this is at least in part responsible for a large amount of public interest in the project. This reflective study, with its emphasis on memories of important music over time, lends itself particularly well to this kind of remote delivery as it allows people the time to consider their responses and formulate their words more carefully than would be possible in a live situation. Unlike a one-off survey, the repeated engagement that we designed favored those with the time to undertake an extended piece of reflection, and as noted earlier, COVID-19 added a host of additional pressures to the pool of prospective participants when comparing initial interest with final completion rates. Nonetheless, we were able to gain a rich sample from well over a 100 participants, which compares favorably with the small numbers typical of reflective forms of data collection (e.g., 7 interviews in Stewart et al., 2019; 21 interviews in Saarikallio, 2011; 27 online interviews in Hird & North, 2021).

The second important point is that research, especially in times of crisis when pressure is greater on individuals, is best done through collaboration. Careful discussion with a team about the practicalities and the demands being placed on participants is a very helpful step in getting a project like this off the ground. To give just one example, we spent time in each language team reviewing the tone of the messages embedded in the research, trying to strike a balance between appropriate formality and a sense of human interaction. For each translated version, this also included a discussion about which form of address to use throughout (e.g., informal "tú" versus formal "usted" in Spanish). Our eventual decision in each case was to address participants formally at the outset when they were

being recruited, but to engage them in the individual follow-up messages and in the study itself in an informal manner to encourage an online interaction and to mirror what would happen if we had the opportunity to meet and get to know participants over time. Collaboration is also an excellent way to make progress in the absence of substantial funding to support research. As noted earlier, I am currently working with four master's students in psychology on a detailed inductive thematic analysis of the English data from this project, while each language team is also working on their own analysis with help from volunteers and students. In addition, a diversity of approaches and of disciplines can enrich a project. In their review, HEFCE (2015) concluded that the research which underpins societal impact is typically multidisciplinary, and that the social benefits are multi-impactful. Our team includes specialists in memory, emotion, education, music analysis, and technology. We bring a wealth of approaches to our analysis and interpretation which reflect our diverse research angles on this topic, and I have no doubt that this will strengthen the outcomes of this and future work as well as enhancing its impact.

The third important point is to always bear participants in mind, and to consider how taking part in research can make a difference to them. Research has already illustrated the power of reactivity in music studies; van Goethem and Sloboda (2011) found their participants were far more aware of the role music played in emotion regulation after completing a weekly diary. Taking part in research that involves in-depth qualitative data are well recognized as being an enriching experience for respondents, but can sometimes be even more profound and life changing. For instance, Husband (2020) found interviews with experienced lecturers in adult education led the respondents to renew their interest and engagement in professional learning. To encourage members of the public to engage in research that requires a lot from them, it is important that they should be able to see the benefits. We designed and promoted the study based on good research evidence that this reminiscence might serve as a form of self-therapy, taking us beyond Level 1 concerns about ethical principles to Level 3 in terms of benefit. The value of this is demonstrated in the comments within the music responses of a wealth of positive memories. Our participants also explicitly noted the value of the experience for their own personal insight explicitly; for example, Jackie (49, female) summed up by commenting "I now have whole new insights into myself!". This data will serve as an important proof of concept for future rounds of recruitment and for similar studies.

This returns to the recurring theme of impact. Our next steps in this project are to develop the toolkit further into a resource that can be used in a range of settings over extended time periods. Beginning from a reflection on favorite pieces of music, participants would be guided to broaden out their choices into playlists that could serve different applied functions (e.g., energizing,

concentration, inducing positive emotions). This would be not only of immediate personal benefit to the participants themselves in giving them a tailored way to access musical memories that might be long forgotten, but would also provide a way for those working in applied settings to access their own clients' musical autobiographies so that they can also harness the power of music for different practical outcomes. This provides complementary evidence to that gained by more structured music therapy protocols such as that by Gerdner (2012), and might help address the difficulties of gaining individualized information about preferred music in such settings, as noted by Garrido et al. (2020). Reminiscence is one such powerful outcome: one of our participants noted that his Desert Island Discs would also probably be useful for his family in planning his funeral, and the idea of creating a musical legacy is one that merits further exploration. This places the research firmly at Level 4 in terms of a project that is designed with core values of benefiting society and the ability to feedback the outcomes to different targeted groups.

What Can You Do?

Sloboda mapped his own research life story onto his levels of social engagement (2005a) in organizing the book in which these ideas were articulated (2005b). As befits his position toward the end of an academic career in music psychology, the tone is one of wisdom, reminiscent of Erikson's life stage model of development (1982): when looking back on one's life, one hopes to reach an evaluation that this life has been worthwhile. Sloboda acknowledged that not every researcher at every point in their career may be able to address questions from the final level of moral value, but implied that this is something worth striving for across an academic career path. In this final section, I challenge some of these assumptions and highlight some key features of contemporary impactful research in music psychology.

The recent shifts toward impact and applicability in research, in my view, have meant that engagement at Sloboda's levels no longer necessarily reflects a linear trajectory across an individual's career. In one sense, early career researchers are focused on learning, applying and—importantly—developing the norms of research. As Farnham et al. (2017) note, "early career researchers have the least commitment toward professional hierarchy and are highly involved in data collection and analysis … young researchers are the key for change". In music psychology early career researchers are often found at the vanguard of new techniques and approaches, holding more established scholars to account in relation to issues such as open science and reproducibility as well as advances in programming and online experiments (e.g., Harrison, 2020; Jensenius & Lieungh, 2020, Neuwirth et al., 2018). This fits with Level 1 impact as Sloboda outlined, as well as providing the potential for

a more diverse reach in terms of access to participants, collaboration with other researchers, and higher levels of external impact.

Furthermore, early career researchers often also begin with a very strong sense of conviction about the value of the work they do. Many doctoral projects in music psychology in the 2010s and 2020s are also tackling important and highly applicable research questions, working closely with beneficiaries; to give some selective examples, these include projects on music in care homes, health promotion in music teaching, music careers, the use of music to support exercise, and rehabilitation from a range of health-related conditions including Parkinson's disease and stroke. These important topics also seem to reflect Level 4 impact in terms of being driven not only by applicability but by morally guided and socially significant topics.

For any research to have impact, it must reach those who need to hear about it. Even the best-designed projects working on areas of societal need cannot change anything if nobody knows about them. We have an obligation to consider how best to get our findings out and again collaboration and cooperation, multidisciplinary audiences, and multiple approaches are likely to be effective. We need to find ways to talk to different audiences, particularly outside academia, and mentors and assessors would also benefit from considering all the levels of potential impact while advising and reviewing others' work at every stage of career development so that findings can reach a wide audience.

Under COVID-19, research, in general, has needed to become more creative. The ethical challenges outlined here will continue to apply as we move out of a global pandemic, and the sharpened focus many of us have gained through the pandemic will serve the research field well. My final thought is that value should not only be measured externally. Positioning ourselves within the wider context of scientific endeavor and being cognizant of external pressures and strategies that might best serve them is of course necessary. However, I believe holding firm to our own personal values, drawing on and developing our own experience rather than shifting direction with each new trend, is a way we can use our skills wisely to further the field of music psychology research. Acknowledging our own limits is also important, particularly for academic researchers who are working in precarious conditions or with increased external pressures of all kinds. This brings me back to the vital importance of collaboration. Working with others helps us progress. For instance, the large international MUSICOVID network currently involving 412 researchers from around the world has shaped projects such as the crowd-sourced database of "coronamusic" by Hansen et al. (2021a), where nearly 800 video and media sources were gathered from network members and members of the public and analyzed by a team from six different institutions. Similarly, music psychologists and ethnomusicologists have recently come together to undertake cross-cultural work which also contributes to the reproducibility agenda at Sloboda's Level 1 (e.g., Jacoby et al., 2020; Savage et al., 2021). If we work effectively together in small or large groups, bringing our own strengths and perspectives to common and impactful goals, music psychology can continue to flourish in the uncertain conditions ahead.

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Note

1. The considerable impact of music performing is also very apparent, as evidenced by the often-spontaneous expressions of musical togetherness during lockdown through singing and playing on balconies and streets across the world (Hansen et al., 2021a), but remains outside the scope of this paper.

References

Adams, E. L., Smith, D., Caccavale, L. J., & Bean, M. K. (2021). Parents are stressed! Patterns of parent stress across COVID-19. *Frontiers in Psychiatry*, *12*, https://doi.org/10.3389/fpsyt.2021.626456

Allen, A. (2014). Who benefits from the impact agenda? *Times Higher Education*, *6*, November. https://www.timeshighereducation.com/comment/opinion/whobenefits-from-the-impact-agenda/2016732.article.

Anglada-Tort, M., & Sanfilippo, K. R. M. (2019). Visualizing Music Psychology: A bibliometric analysis of *Psychology of Music*, *Music Perception*, and *Musicae Scientiae* from 1973 to 2017. *Music and Science*, *2*(1). https://doi.org/10.1177/2059204318811786

Armitage, J. (2019). Crowdsourcing in Music Psychology. *Durham University Music and Science Lab Blog*. https://musicscience.net/2019/07/09/crowdsourcing-in-music-psychology/.

Banerjee, D., & Rai, M. (2020). Social isolation in Covid-19: The impact of loneliness. *International Journal of Social Psychiatry*, *66*, 525–527. https://doi.org/10.1177/0020764020922269

Barradas, G. T., Juslin, P. N., & Bermúdez I Badia, S. (2021). Emotional reactions to the music in dementia patients and healthy controls: Differential responding depends on the mechanism. *Music and Science*, *4*, 205920432110101. https://doi.org/10.1177/20592043211010152

BBC. (undated). *Archive for Desert Island Discs*. https://www.bbc.co.uk/programmes/articles/5qhJd1byxhTBYbSCFmw580y/desert-island-discs-podcasts.

Blacking, J. (1969). The value of music in human experience. *Yearbook of the International Folk Music Council*, *1*, 33–71. https://doi.org/10.2307/767634

Bonneville-Roussy, A., Stillwell, D., Kosinski, M., & Rust, J. (2017). Age trends in musical preferences in adulthood: 1. Conceptualization and empirical investigation. *Musicae Scientiae*, *21*(4), 369–389. https://doi.org/10.1177/1029864917691571

Brown, J., Cook, N., & Cottrell, S. (2017). *Defining the discographic self: Desert Island Discs in context* (Eds.). Oxford University Press.

Carers, U. K. (2020). *Caring behind closed doors: six months on. The continued impact of the coronavirus (COVID-19) pandemic on unpaid carers*. October. https://www.carersuk.org/images/News_and_campaigns/Caring_Behind_Closed_Doors_Oct20.pdf.

Chapman, C. A., Bicca-Marques, J. C., Calvignac-Spencer, S., Fan, P., Fashing, P. J., Gogarten, J., Guo, S., Hemingway, C. A., Leendertz, F., Li, B., Matsuda, I., Hou, R., Serio-Silva, J. C., & Stenseth, N. C. (2019). Games academics play and their consequences: how authorship, *h*-index and journal impact factors are shaping the future of academia. *Proceedings of the Royal Society B*, *286*, 20192047. https://doi.org/10.1098/rspb.2019.2047

Corbera, E., Anguelovski, I., Honey-Rosés, J., & Ruiz-Mallén, I. (2020). Academia in the time of COVID-19: Towards an ethics of care. *Planning Theory and Practice*, *21*(2), 191–199. https://doi.org/10.1080/14649357.2020.1757891

Davis, H. E., Assaf, G. S., McCorkell, L., Wei, H., Low, R. J., Re'em, Y., Redfield, S., Austin, J. P., & Akrami, A. (2021). Characterizing long COVID in an international cohort: 7 months of symptoms and their impact. *EClinicalMedicine*, *38*, 101019. https://doi.org/10.1016/j.eclinm.2021.101019

Dinis-Oliveira, R. (2020). COVID-19 research: pandemic *versus* "paperdemic", integrity, values, and risks of the "speed science". *Forensic Sciences Research*, *5*(2), 174–187. https://doi.org/10.1080/20961790.2020.1767754

Eerola, T. (2018). Open Data in Music and Science. Blog retrieved from: https://musicscience.net/2018/05/25/open-data-in-music-and-science/.

Erikson, E. H. (1982). Major stages in psychosocial development. In *The life cycle completed: A review* (pp. 55–82). W W Norton.

Farnham, A., Kurz, C., & Öztürk, M. A., … (2017). Early career researchers want Open Science. *Genome Biology*, *18*, 221. https://doi.org/10.1186/s13059-017-1351-7

Garrido, S., Dunne, L., Perz, J., Chang, E., & Stevens, C. J. (2020). The use of music in aged care facilities: A mixed-methods study. *Journal of Health Psychology*, *25*-(10-11), 1425–1438. https://doi.org/10.1177/1359105318758861

Garrido, S., & Schubert, E. (2011). Individual differences in the enjoyment of negative emotion in music: A literature review and experiment. *Music Perception*, *28*(3), 279–296. https://doi.org/10.1525/mp.2011.28.3.279

Gerdner, L. A. (2012). Individualized music for dementia: Evolution and application of evidence-based protocol. *World Journal of Psychiatry*, *2*(2), 26–32. https://doi.org/10.5498/wjp.v2.i2.26

Greasley, A. E., Lamont, A., & Sloboda, J. A. (2013). Exploring musical preferences: An in-depth study of adults' liking for music in their personal collections. *Qualitative Research in Psychology*, *10*(4), 402–427. https://doi.org/10.1080/14780887.2011.647259

Groarke, J. M., & Hogan, M. J. (2016). Enhancing wellbeing: An emerging model of the adaptive functions of music listening. *Psychology of Music*, *44*(4), 769–791. https://doi.org/10.1177/0305735615591844

Hallett, R., & Lamont, A. (2019). Evaluation of a motivational pre-exercise music intervention. *Journal of Health Psychology*, *24*(3), 309–320. https://doi.org/10.1177/1359105316674267

Hansen, N. C., Treider, J. M. G., Swarbrick, D., Bamford, J. S., Wilson, J., & Vuoskoski, J. K. (2021a). A crowd-sourced database of coronamusic: Documenting online making and sharing of music during the COVID-19 pandemic. *Frontiers in Psychology*, *12*, https://doi.org/10.3389/fpsyg.2021.684083

Hansen, N. C., Wald-Fuhrmann, M., & Davidson, J. W. (2021b). Social Convergence in Times of Spatial Distancing: The Role of Music During the COVID-10 Pandemic. *Frontiers Research Topic*, *12*. https://www.frontiersin.org/research-topics/14089/social-convergence-in-times-of-spatial-distancing-the-role-of-music-during-the-covid-19-pandemic#overview.

Harrison, P. M. C. (2020). psychTestR. An R package for designing and conducting behavioural psychological experiments. *The Journal of Open Source Software*, *5*(49), 2088. https://doi.org/10.21105/joss.02088

HEFCE (2015). *The nature, scale and beneficiaries of research impact: An initial analysis of Research Excellence Framework (REF) 2014 impact case studies*. Research Report (King's College London and Digital Science), HEFCE. https://webarchive.nationalarchives.gov.uk/20170712123928/http://www.hefce.ac.uk/pubs/rereports/Year/2015/analysisREFimpact/.

Hird, E., & North, A. (2021). The relationship between uses of music, musical taste, age, and life goals. *Psychology of*

Music, *49*(4), 872–889. https://doi.org/10.1177/0305735620 915247

Holbrook, J. B. (2012). Re-assessing the science—society relation: The case of the US National Science Foundation's broader impacts merit review criterion (1997–2011). In R. Frodeman, J. B. Holbrook, C. Mitcham, & H. Xiaonan (Eds.), *Peer review, research integrity, and the governance of science—practice, theory, and current discussions* (pp. 328–362). People's Publishing House.

Holbrook, J. B. (2017). The future of the impact agenda depends on the revaluation of academic freedom. *Palgrave Communications*, *3*(39). https://doi.org/10.1057/s41599-017-0041-0

Husband, G. (2020). Ethical data collection and recognizing the impact of semi-structured interviews on research respondents. *Education Sciences*, *10*, 206. https://doi.org/10.3390/educsci10080206

Jacoby, N., Margulis, E. H., Clayton, M., Hannon, E., Honing, H., Iversen, J., Klein, T. R., Mehr, S. A., Pearson, L., Peretz, I., Perlman, M., Polak, R., Ravignani, A., Savage, P. E., Steingo, G., Stevens, C. J., Trainor, L., Trehub, S., Veal, M., & Wald-Fuhrmann, M. (2020). Cross-cultural work in music cognition: Challenges, insights, and recommendations. *Music Perception*, *37*(3), 185–195. https://doi.org/10.1525/mp.2020.37.3.185

Jans-Beken, L. (2021). A perspective on mature gratitude as a way of coping with COVID-19. *Frontiers in Psychology*, *12*, 632911. https://doi.org/10.3389/fpsyg.2021.632911

Jensenius, A. R. (2020). Why is open research better research? Blog retrieved from https://www.arj.no/2020/08/27/open-research/.

Jensenius, A. R., & Lieungh, E. (2020). How to Make Music Research Open? *Open Science Talk*. (26) https://doi.org/10.7557/19.5309

Johnson, M. T. (2020). The knowledge exchange framework: understanding parameters and the capacity for transformative engagement. *Studies in Higher Education*, 1–18. https://doi.org/10.1080/03075079.2020.1735333

Jowett, A. (2020). Carrying out qualitative research under lockdown: Practical and ethical considerations. *LSE Impact Blog*. https://blogs.lse.ac.uk/impactofsocialsciences/2020/04/20/carrying-out-qualitative-research-under-lockdown-practical-and-ethical-considerations/.

Juslin, P. N. (2013). From everyday emotions to aesthetic emotions: Towards a unified theory of musical emotions. *Physics of Life Reviews*, 10(3), 235–266. https://doi.org/10.1016/j.plrev.2013.05.008

Juslin, P. N., & Laukka, P. (2004). Expression, perception, and induction of musical emotions: A review and a questionnaire study of everyday listening. *Journal of New Music Research*, *33*(3), 217–238. https://doi.org/10.1080/0929821042000317813

Kang, J. H. Y., Mason, R. N., & Tarshis, T. P. (2020). Relationship between religion/spirituality and mental health in youth during Covid-19. *Journal of the American Academy of Child and Adolescent Psychiatry*, *59*(10), S255. https://doi.org/10.1016/j.jaac.2020.08.424

Kelly, U., & McNicoll, I. (2011). Through a glass, darkly: Measuring the social value of universities. National Co-ordinating Centre for Public Engagement. https://www.publicengagement.ac.uk/sites/default/files/80096%20NCCPE%20Social%20Value%20Report.pdf.

Knox, D., & MacDonald, R. (2017). Broadcasting personalities: The relationship between occupation and music preferences in the BBC Radio programme Desert Island Discs. *Psychology of Music*, *45*(5), 645–664. https://doi.org/10.1177/0305735616670497

Krause, A. E., Dimmock, J., Rebar, A. L., & Jackson, B. (2021). Music listening predicted improved life satisfaction in university students during early stages of the COVID-19 pandemic. *Frontiers in Psychology*, *11*, https://doi.org/10.3389/fpsyg.2020.631033

Lamont, A. (2011). University students' strong experiences of music: Pleasure, engagement and meaning. *Musicae Scientiae*, *15*(2), 229–249. https://doi.org/10.1177/1029864911403368

Lamont, A., & Crich, J. (2021). Where do our music preferences come from? Family influences on music across childhood, adolescence and early adulthood. *Journal of Popular Music Education*. (in press)

Lamont, A., Fiederle, E., Knox, D., & MacDonald, R. (2018). How do different people talk about music? An exploration of the Desert Island Discs archive by occupation type. Paper presented at the 15th International Conference on Music Perception and Cognition, Graz, Austria.

Lamont, A., & Loveday, C. (2020). A new framework for understanding memories and preference for music. *Music and Science*, *3*, 205920432094831. https://doi.org/10.1177/2059204320948315

Lamont, A., & Ranaweera, N. (2019). Knit one, play one: Comparing the effects of knitting and music participation on happiness and wellbeing. *Applied Research in Quality of Life*, *15*, 1353–1374. https://doi.org/10.1007/s11482-019-09734-z

Lamont, A., & Webb, R. (2010). Short- and long-term musical preferences: What makes a favourite piece of music? *Psychology of Music*, *38*(2), 222–241. https://doi.org/10.1177/0305735609339471

Littler, J. (2017). Adrift or ashore? Desert Island Discs and celebrity culture. In J. Brown, N. Cook, & S. Cottrell (Eds.), *Defining the Discographic Self: Desert Island Discs in Context* (pp. 93–106). Oxford University Press.

Loveday, C., Woy, A., & Conway, M. A. (2020). The self-defining period in autobiographical memory: Evidence from a long-running radio show. *Quarterly Journal of Experimental Psychology*, *73*, 1969–1976. https://doi.org/10.1177/1747021820940300

Magee, S. (2012). *Desert Island Discs: 70 years of castaways from one of BBC radio 4's best-loved programmes*. Bantam Press.

Mantie-Kozlowski, A., Mantie, R., & Keller, C. H. (2018). Enjoyment in a recreational sing-along group for people with aphasia and their caregivers. *Aphasiology*, *32*(5), 518–537. https://doi.org/10.1080/02687038.2018.1427208

Martin, B. R. (2011). The Research Excellence Framework and the "impact agenda": are we creating a Frankenstein monster? *Research Evaluation*, *20*(3), 247–254. https://doi.org/10.3152/095820211X13118583635693

Meth, P. (2017). "Coughing everything out": The solicited diary method. In V. Braun, V. Clarke, & D. Gray (Eds.), *Collecting qualitative data: A practical guide to textual, media and virtual techniques* (pp. 94–115). Cambridge University Press.

Mürbe, D., Kriegel, M., Lange, J., Rotheudt, H., & Fleischer, M. (2021). Aerosol emission in professional singing of classical music. *Scientific Reports*, *11*, 14861. https://doi.org/10.1038/s41598-021-03281-x

Neuwirth, M., Harasim, D., Moss, F. C., & Rohrmeier, M. (2018). The annotated Beethoven corpus (ABC): A dataset of harmonic analyses of all Beethoven string quartets. *Frontiers in Digital Humanities*, *5*, 16. https://doi.org/10.3389/fdigh.2018.00016

Novotny, J. S., Gonzalez-Rivas, J. P., Kunzová, Š, Skladaná, M., Popsíšilová, A., Polcrová, A., Medina-Inojosa, J. R., Lopez-Jimenez, F., Geda, Y. E., & Stokin, G. B. (2020). Risk factors underlying COVID-19 lockdown-induced mental distress. *Frontiers in Psychiatry*. https://doi.org/10.3389/fpsyt.20202.603014

Oakman, J., Kinsman, N., Stuckey, R., Graham, M., & Weale, V. (2020). A rapid review of mental and physical health effects of working at home: How do we optimise health? *BMC Public Health*, *20*, 1825. https://doi.org/10.1186/s12889-020-09875-z

Penfield, T., Baker, M. J., Scoble, R., & Wykes, M. C. (2014). Assessment, evaluations, and definitions of research impact: A review. *Research Evaluation*, *23*, 21–32. https://doi.org/10.1093/reseval/rvt021

Pinker, S. (1997). *How the mind works*. W. W. Norton.

Plante, T. G., Gustafson, C., Brecht, C., Imberi, J., & Sanchez, J. (2011). Exercising with an iPod, friend, or neither: Which is better for psychological benefits? *American Journal of Health Behaviours*, *35*(2), 199–208. https://doi.org/10.5992/ajhb.35.2.7

Posel, D., Oyenubi, A., & Kollamparambil, U. (2021). Job loss and mental health during the COVID-19 lockdown: Evidence from South Africa. *PLoS One*, *16*(3), e0249352. https://doi.org/10.1371/journal.pone.0249352

REF2014 (2011). *Assessment framework and guidance on submissions*. https://www.ref.ac.uk/2014/pubs/2011-02/.

Reimnitz, L., & Silverman, M. (2020). Perceived mechanisms targeting cancer-related fatigue, song choice rationale, and song function: An interpretivist study of patient-preferred live music with adult oncology patients on a blood and marrow transplant unit. *Psychology of Music*, *49*, 1401–1414. https://doi.org/10.1177/0305735620942299

Rosenberg, N., Greenberg, D. M., & Lamb, M. E. (2021). Musical engagement is linked to posttraumatic resilience: The role of gender, personality, and music listening styles after childhood trauma. *Music and Science*, *4*, 205920432199373. https://doi.org/10.1177/2059204321993731

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data*. Sage.

Saarikallio, S. (2011). Music as emotional self-regulation throughout adulthood. *Psychology of Music*, *39*(3), 307–327. https://doi.org/10.1177/0305735610374894

Saarikallio, S., & Erkkilä, J. (2007). The role of music in adolescents' mood regulation. *Psychology of Music*, *35*(1), 88–109. https://doi.org/10.1177/03057356070688889

Sanfilippo, K. R. M., Spiro, N., Molina-Solana, M. J., & Lamont, A. (2020). Do the shuffle: Exploring reasons for music listening through shuffled play. *PlosOne*, *15*, e0228457. https://doi.org/10.1371/journal.pone.0228457

Savage, P. E., Jacoby, N., Margulis, E. H., Daikoku, H., & Anglada-Tort, M., … (2021). June 11). Building sustainable global collaborative networks: Recommendations from music studies and the social sciences. https://doi.org/10.31234/osf.io/cb4ys.

Schäfer, K., & Eerola, T. (2020). How listening to music and engagement with other media provide a sense of belonging: An exploratory study of social surrogacy. *Psychology of Music*, *48*(2), 232–251. https://doi.org/10.1177/0305735618795036

Schäfer, K., Saarikallio, S., & Eerola, T. (2020). Music may reduce loneliness and act as social surrogate for a friend: Evidence from an experimental listening study. *Music and Science*, *3*, 1–16. https://doi.org/10.1177/2059204320935709

Schäfer, T., & Sedlmeier, P. (2009). From the functions of music to music preference. *Psychology of Music*, *37*(3), 279–300. https://doi.org/10.1177/030573560809247

Schäfer, T., Smukalla, M., & Oelker, S.-A. (2014). How music changes our lives: A qualitative study of the long-term effects of intense musical experiences. *Psychology of Music*, *42*(4), 525–544. https://doi.org/10.1177/030573561392024

Schulkin, J., & Raglan, G. B. (2014). The evolution of music and human social capability. *Frontiers in Neuroscience*, *8*, 292. https://doi.org/10.3389/fnins.2014.00292

Sherman, S. M., Smith, L. E., Sim, J., Amlôt, R., Cutts, M., Dasch, H., Rubin, G. J., & Sevdalis, N. (2020). COVID-19 vaccination intention in the UK: results from the COVID-19 vaccination acceptability study (CoVAccs), a nationally representative cross-sectional survey. *Human Vaccines and Immunotherapeutics*, *75*, 1612–1621. https://doi.org/10.1080/21645515.2020.1846397

Skånland, M. S. (2013). Everyday music listening and affect regulation: The role of MP3 players. *International Journal of Qualitative Studies on Health and Well-Being*, *8*, 1–10. https://doi.org/10.3402/qhw.v9i0.20595

Sloboda, J. A. (2005a). Assessing music psychology research: values, priorities, and outcomes. In J. A. Sloboda (Ed.), *Exploring the musical mind: Cognition, emotion, ability, functions* (pp. 395–419). Oxford University Press. https://www.researchgate.net/publication/351050824_Assessing_music_psychology_research_values_priorities_and_outcomes.

Sloboda, J. A. (2005b). *Exploring the musical mind: Cognition, emotion, ability, functions*. Oxford University Press.

Stewart, J., Garrido, S., Hense, C., & McFerran, K. (2019). Listening choices in young people with tendencies to depression. *Frontiers in Psychology*, *10*, 1199. https://doi.org/10.3389/fpsyg.2019.01199

Taruffi, L., & Koelsch, S. (2014). The paradox of music-evoked sadness: An online survey. *PLoS One*, *9*(10), e110490. https://doi.org/10.1371/journal.pone.0110490

Tirovolas, A. K., & Levitin, D. J. (2011). Music perception and cognition research from 1983 to 2010: A categorical and bibliometric analysis of empirical articles in *Music Perception*. *Music Perception*, *29*(1), 23–36. https://doi.org/10.1525/mp.2011.29.1.23

Van den Tol, A. J. M., & Edwards, J. (2011). Exploring a rationale for choosing to listen to sad music when feeling sad. *Psychology of Music*, *41*(4), 440–465. https://doi.org/10.1177/0305735611430433

Van der Akker, W., & Spaapen, J. (2017). Productive interactions: societal impact of academic research in the knowledge society. LERU position paper, retrieved from https://www.leru.org/files/Productive-Interactions-Societal-Impact-of-Academic-Research-in-the-Knowledge-Society-Full-paper.pdf.

Van Goethem, A., & Sloboda, J. A. (2011). The functions of music for affect regulation. *Musicae Scientiae*, *15*(2), 208–228. https://doi.org/10.1177/1029864911401174

Williams, S. N., Armitage, C. J., Tampe, T., & Dienes, K. (2020). Public perceptions and experiences of social distancing and social isolation during the COVID-19 pandemic: A UK-based focus group study. *BMJ Open*, *10*(7). https://doi.org/10.1136/bmjopen-2020-039334

Yeung, T. Y.-C. (2020). Did the COVID-19 Pandemic Trigger Nostalgia? Evidence of Music Consumption on Spotify (August 21, 2020). https://doi.org/10.2139/ssrn.3678606.