

ANTI-COLONIAL STRATEGIES IN CROSS-CULTURAL MUSIC SCIENCE RESEARCH

SARAH A. SAUVÉ
University of Lincoln, Lincoln, United Kingdom
 & *Memorial University of Newfoundland,*
St. John's, Canada

ELIZABETH PHILLIPS
McMaster University, Hamilton, Canada

WYATT SCHIEFELBEIN
University of Alberta, Edmonton, Canada

HIDEO DAIKOKU
Keio University, Tokyo, Japan

SHANTALA HEGDE
National Institute of Mental Health and Neurosciences,
Bengaluru, India

SYLVIA MOORE
Memorial University of Newfoundland, St. John's,
Canada

THIS PAPER PRESENTS A CRITICAL ANALYSIS OF ethical and methodological issues within cross-cultural music science research, including issues around community based research, participation, and data sovereignty. Although such issues have long been discussed in social science fields including anthropology and ethnomusicology, psychology and music cognition are only beginning to take them into serious consideration. This paper aims to fill that gap in the literature, and draw attention to the necessity of critically considering how implicit cultural biases and pure positivist approaches can mar scientific investigations of music, especially in a cross-cultural context. We focus initially on two previous papers (Jacoby et al., 2020; Savage et al., 2021) before broadening our discussion to critique and provide alternatives to scientific approaches that support assimilation, extractivism, and universalism. We then discuss methodological considerations around cross-cultural research ethics, data ownership, and open science and reproducibility. Throughout our critique, we offer many personal recommendations to cross-cultural music researchers, and suggest a few larger systemic changes.

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THERE HAS BEEN AN INCREASING INTEREST and production of cross-cultural research in music science as the field becomes increasingly aware of its long-standing Western biases, yet thus far, music scientists have conducted relatively little cross-cultural research. According to a Dimensions search (app.dimensions.ai/discover/publication), the number of publications using the terms “cross-cultural” and “music” have nearly doubled in psychology and cognitive sciences over the last almost decade, up 46% between 2012 and 2021. Meanwhile, other broadly defined fields such as language, communication and culture, history and archaeology, and historical studies see a decrease of 11%, 44%, and 50%, while studies in human society remain at approximately the same number, with an increase of 0.3% over the same decade. However, music science as a discipline has not fully developed and integrated the research methodologies and considerations necessary to conduct cross-cultural research ethically and with nuance as have other disciplines. In cross-cultural music science, discussions surrounding some ethical considerations are still in their early stages, while others have gone unaddressed. We therefore felt that it was (and will continue to be) important to gather insight from many different folks (academics in our field, in other fields, and community members) on how to best build and evaluate cross-cultural methodologies in music science. In particular, we sought to not only consider the input of those already in music science, but we especially sought out the input from racialized, Indigenous, and other minoritized voices,¹ and from researchers in fields with well-established cross-cultural methodologies and discourse.

It was our intention to open a conversation about how music scientists could not only engage in cross-cultural research ethically and effectively, but also how we might directly question the Euro-centric worldviews and

¹ Racialized peoples are actually the global majority, but they are still a minority in most academic spaces, including music science research.

methodologies that define not just our field, but the majority of science, and indeed academia in general² (see Tuck & Yang, 2012). Fortunately, decades of critical literature have already examined the ethical dimensions of cross-cultural, anti-colonial/imperial, and decolonial as well as anti-colonial research.³ These issues have been a primary focus in some fields, including Indigenous studies, anthropology, community health, and ethnomusicology. Yet critical theory—and its resulting body of critical literature—has a smaller footprint in other fields, including psychology (Teo, 2006, though see critical psychology, Fox et al., 2009), open science (Bennett, 2021; Brabeck, 2021; Brabeck & Ting, 2000), artificial intelligence (Cook, 2021), neuroscience (Choudhury et al., 2009), and of course, most disciplines of music science research that intersect with those listed above. As such, music scientists have ample opportunity to grow the body of critical literature within our field that is working to promote, and simultaneously address the challenges of, ethical cross-cultural work. The present paper is thus presented as one such critical review of cross-cultural music science, with a focus on its past and current approaches and methodologies.

First, we will situate and define the scope of our critique. We will then introduce two existing landmark articles about cross-cultural music science research. We will reproduce and comment on a few major points from both these papers, then explain why we felt that further discussion on these issues was still necessary. In particular, we will point out some of the lessons from critical literature in other fields that are most relevant to music science now, discuss how those lessons might be applied despite the differences in research methodologies, and end with some suggestions for how music scientists can purposefully foster anti-colonialism in our research, especially our cross-cultural research.

What is Cross-cultural Music Science?

To define the field of cross-cultural music science, we must first define what is generally meant by culture, and what is generally meant by science (see, for example, Jacoby et al., 2020). To the former, one might say that,

² In “Pollution is colonialism,” Liboiron (2021a) points out that not all Western science is colonial and not all colonial science is Western; the dominant scientific epistemology is colonial—an important distinction. So, we are not going to use the term Western science, we are going to be more specific.

³ We get into the difference between decolonial and anti-colonial in more depth in our workshop summary (see Author Note). To summarize, the decolonial project is about Indigenous sovereignty and “land back,” while the anti-colonial project considers Land relations more broadly.

“Culture is a fuzzy set of basic assumptions and values, orientations to life, beliefs, policies, procedures and behavioural conventions that are shared by a group of people, and that influence (but do not determine) each member’s behaviour and his/her interpretations of the ‘meaning’ of other people’s behaviour” (Spencer-Oatey, 2008, p. 3). This is only one of multitudinous definitions of culture (Spencer-Oatey & Franklin, 2012). It includes both behaviours and norms that are highly specific and codified and those that are amorphous and constantly changing.

Jacoby et al. (2020) identified two primary ways in which a researcher’s understanding of culture is central to their study of music. First, culture is “rarely if ever bounded, discrete, or closed” (p. 189). Labels such as ethnicity, nationality, or country, while commonly used as stand-ins for cultural identity, do not equate to culture and do not fully capture its complexities. As such, labeling a musician or piece of music as hailing from a specific culture can be both challenging and problematic. This fuzziness also has different implications in different fields of music science. A music psychologist, for example, might struggle to quantify “enculturation”—that is, the degree to which (and often the process by which) someone’s mental framework reflects their particular cultural upbringing and situation. Meanwhile, a computational musicologist might have difficulties with delineating genres and eras, which are defined by primarily cultural features. Second, Jacoby and colleagues (2020) point out that “[r]esearchers are culturally situated actors” (p. 189) as well. This means that no matter the subfield, music scientists are bringing their own cultural biases to the research questions they pose, the methods they use and the interpretations and conclusions they draw from data. Therefore, it is critical for researchers to examine not only how they define culture within their work, but also how their culture defines the work they do.

It could be argued that all music science, and indeed all science in general, is ultimately “cultural” research. What is meant, then, by cross-cultural research? Typically, cross-cultural research is thought of as work that compares a cultural trait between two or more cultures. This paper will consider any research involving more than one culture as cross-cultural, when the multiplicity stems from the participants and subject matter of the research. Of course, even such a broad definition faces scrutiny. What if the researcher themselves identifies with a different culture than the subject of the research? What if the researcher ultimately identifies with the culture under study, but is carrying out their work through the framework of another culture? In such

situations, the dual responsibilities towards one's community and the academy can be difficult to balance (Innes, 2009; Smith, 2013). Although these cases might not strictly classify as "cross-cultural research," they are still scenarios where the researcher's cultural (sometimes cross-cultural) and scientific biases may impact their approach and results.

This brings us to the question of defining what we mean by science. Up to this point we have used more general terms like the academy and the typical "framework" of research. The academy is, for the purposes of this paper, the overarching institutional structures through which most public research is carried out. The particular framework of that research varies by field; this paper will focus on the "scientific" fields of music research, including music perception and cognition (known broadly as music psychology), music neuroscience and neuropsychology, psychoacoustics, audiology, cognitive musicology, evolutionary musicology, biomusicology, performance science, and at times, music therapy and music education.

What gives these fields a scientific framework is their commitment to positivism. Positivism is a knowledge framework wherein objective truth exists and is discoverable (Lincoln et al., 2011). From an epistemological standpoint, positivism might be considered an umbrella philosophy that includes rationalism, which holds that facts can be derived through reason and logic, and empiricism, which holds that facts can be derived through observation and experience. The hallmark of positivism is the introduction of "the scientific method" (more specifically, the hypothetico-deductive method) to a field of study. By this approach, knowledge is to be gained by formulating theories, operationalizing those theories by creating falsifiable hypotheses, following experimental methodologies to test those hypotheses, and using the results of those experiments to generate subsequent theories. In brief, positivism aims to find objective truths about the world through the use of rigorous experimental methodology.

Critical frameworks such as critical theories, constructivism, and participatory research, on the other hand, are a set of research frameworks arising from the antipositivist movement, which was focused on the value of subjective truths (Lincoln et al., 2011). Antipositivism, and the critical frameworks associated with it, questions whether quantitative methods are capable of discerning how the world actually is, given that all observations are inherently limited, and the "inner nature" (Wallace & Gach, 2010, p. 27) of many natural phenomena, like thoughts and feelings, can never be empirically observed. This debate, while arising notably

in sociology in the 1960s as "the positivism dispute," (Strubenhoff, 2018) dates back to Plato's dialogue between philosophy and poetry (Egan, 1997, pp. 115–116). It was later reframed as the conflict between the natural sciences and the humanities (Wallace & Gach, 2010), and might now extend to the conflict between quantitative and qualitative research methodologies.

In this paper, we will use positivism to refer broadly to the "scientific" research framework that is dominated by empirical, quantitative, and experimental pursuits of objective knowledge, and critical frameworks to refer broadly to the "humanities" research framework that is dominated by experiential and qualitative pursuits of subjective knowledge. We will also use postpositivism to refer to the middleground, which—while still concerned with objective knowledge and experimental methodology—emphasizes how the subjective role of the researcher (and participants) may influence one's observations, and includes both quantitative and qualitative research methodologies. Postpositivism is still generally a "scientific" framework, in that it is *rooted* in positivism, and therefore still adheres to the scientific method and the scientific values of skepticism, rigor, and modesty. Therefore, whether a field is primarily positivist or postpositivist, we will consider it as included in the greater scientific project.

To summarize, when we are critiquing cross-cultural music science we are focused on music research that involves multiple cultures and attempts to investigate some objective truth using primarily experimental methodology. Many of our critiques will be drawn from fields that take a more critical approach, including ethnomusicology, anthropology, and Indigenous studies, because we believe that music science has much to learn from their rich bodies of critical literature and their longer histories of engaging with cross-cultural issues. However, we are not merely critiquing positivism and its role in music science, and touting critical frameworks as the solution. These approaches differ not only in their methodologies, but in their philosophical commitments, aims, subjects, and products. Hence, we propose that ethical cross-cultural music science will not be produced by the "better one" of these two approaches, but by the thoughtful application of both, as is necessitated by the specific research context.

We also reiterate that both approaches are ultimately rooted in the larger structure of the academy, and thereby are both subject to its Euro-centric biases, which we will critique at large. This means that when we discuss the colonial and imperial influences within music science, and especially cross-cultural music science, we are not specifically critiquing the methodologies that make those

fields scientific. On the contrary, many of the critiques we draw from critical literature were, originally, critiques of research within critical frameworks. These existing critiques of cross-cultural academic research *in general* can and should be applied to cross-cultural music science *in particular*, so that the field can learn these crucial lessons in its early days and progress purposefully in an anti-colonial/imperial direction, even within the colonial bounds of the academy.

Existing Critical Literature in Cross-cultural Music Science

Although we have stated that cross-cultural music science is still a relatively young field, as mentioned above, there has been a significant increase in its output and the interest it generates. In addition to an increase in papers, a cursory glance at the ICMPC-ESCOM 2021 abstract book indicates further cross-cultural work in various pre-publication stages. Some of the best-known cross-cultural work includes McDermott's work with the Amazonian Tsimane tribe, Mehr's work on musical universals⁴ and Jacoby and Savage's work on cross-cultural rhythm and pitch perception, universality and the cultural evolution of music. Given the ubiquity of music in daily life and the increasing public profile of music science, it is unsurprising that this research has received general media attention as well (Berger, 2021; Fesseden, 2018). A comprehensive review of the findings of recent cross-cultural music research is beyond the scope of this paper (see Deffner et al., 2022; Savage, 2018; Savage & Fujii, 2022; Stevens, 2012; Trehub et al., 2018; Vuust et al., 2022, for recent reviews and discussions). Instead, we will start by discussing some existing critical reviews within cross-cultural music research.

Jacoby et al. (2020) is a position paper summarizing a series of meetings occurring at the Max Planck Institute for Empirical Aesthetics in Frankfurt, Germany in October 2018. The 20 authors taking part in these meetings self-identified as "predominantly white men and women from elite Euro-American academic institutions" (p. 186) and acknowledged this as a major limiting factor in their discussion. These authors were motivated by the WEIRD (Western, Educated, Industrial, Rich, Democratic; Henrich et al., 2010a, 2010b)

⁴ This lab's work already receives ample critique; therefore we will not elaborate here. Robinson (2020) summarizes the problem well: "this scripting of only the musical aspects of a cultural practice enacts a form of symbolic violence upon that cultural practice itself, recognizing and including it within a system of Western music rather than understanding its ontological difference as having a more-than-aesthetic function" (p. 137).

participant sampling bias that exists in psychology research, including music psychology.⁵ They point to two fundamental issues in psychological research created by this bias. First, the knowledge that these samples produce regarding the mechanisms of music perception and production can only be applied to WEIRD populations, as we cannot presume that WEIRD populations are suitable representatives of all human populations. Second, due to this limited participant sample, the field is ill-prepared to account for music-making and music-listening on a global scale, or to determine the generalizability of these WEIRD findings. Questions abound, especially within music psychology, about the origins of music, the relationships between music and language, and the diversity and commonality of music-making and music-listening, but psychological methods and extant knowledge have thus far been insufficient to offer truly global answers. We critique this goal itself later in the paper.

As such, the authors suggest that music scientists interested in these questions should engage in interdisciplinary collaborations and adopt methods from fields that already produce cross-cultural research. They presented their recommendations through four topics: 1) music and musicality, 2) culture(s), 3) ethics, and 4) paradigms and methods.

Savage et al. (2023) is a book chapter by 18 authors who met for a virtual symposium (including 23 participants) in February 2021 to discuss sustainable, global, collaborative research networks for cross-cultural research. It was designed as a more inclusive follow-up to the Jacoby et al. (2020) paper and is therefore closely related. They present 14 key recommendations under four themes, namely diversity, logistics, comparison, and incentives, and reach two overarching conclusions: "sustainable global collaborations should attempt shared research practices including diverse stakeholders, and [...] we should fundamentally re-evaluate the nature of research credit attribution" (p. 2).

We are grateful for both these pieces for raising the important issues that they do and putting them in writing. We agree with Jacoby et al.'s (2020) assertion that "cross-cultural music cognition research requires a -critical awareness of a larger historical context; for example, the history of Western imperialism and colonialism" (p. 187). However, we feel that overall, the

⁵ It is worth noting that there are issues with the WEIRD label itself (Clancy & Davis, 2019). For example, Japan and South Korea are not "W" but they have advanced economies and education systems; and countries like India, Brazil, and Kenya are considered non-WEIRD but can we assume they are all uneducated and poor? (Ghai et al., 2021)

recommendations proposed in both papers do not do enough to explicitly address the *current* influences and entrenchment of imperialism and colonialism on cross-cultural research in music science. More specifically, we caution against promoting diversity through assimilation, extraction rather than collaborative inclusion, and reliance on institutional review boards. We also feel that there is still more room to incorporate the perspectives and methodologies of non-WEIRD academics, non-science disciplines, and non-academic communities in these discussions, especially as our field increases its cross-cultural research output. See Anderson and Cidro (2019) for further discussion of community-based research in the field of community-based health research (from an Indigenous studies perspective).

Imperialism/Colonialism in Music Science Research

“From its origins in the 19th century, ethnography’s mission was to discover, study, and record the way of life of the dark-skinned primitive other” (Vidich & Lyman, 1994, p. 25, as cited in Denzin, 2017, p. 9). In other words, research fields involving the study of culture, particularly non-Western cultures, have their origins in systemic racism and imperialism. Although these outright and egregious attitudes towards the “Other” are now condemned in cultural studies, the imperialist origins of the academy still exert subtler influences in scientific fields, influences that are often overlooked because science is considered objective.

One striking example of this in music research is the story of the subfield known as comparative musicology (Merriam, 1977). This field became quite popular in the early twentieth century, and soon became predominantly steered by German musicologists who were, in essence, touting the superiority of European Art music in comparison to all other musics. By the mid-twentieth century, ethnomusicologists had generally denounced comparative musicology, claiming that comparing music across cultures inevitably entailed an unwanted comparison in the value (aesthetic, moral, intellectual, or otherwise) of those musics.

Although this mindset persists in ethnomusicology to this day, recent decades have seen a resurgence of comparative musicology work carried out by computational musicologists and biometricologists (Fitch, 2015; Savage & Brown, 2020). The same cross-cultural research, as now performed in scientific fields with the modern technologies of the twenty-first century, has received relatively less criticism because it is viewed as more objective, and lacking in outright value judgments. This

is generally true: the typical aim of contemporary cross-cultural music science is to use empirical methodologies to investigate how various musics are “objectively” alike and different—not better and worse. The prevailing sentiment is that the discovery of *universals* in music would enhance our understanding of music’s biological and evolutionary roots, whereas the investigation—and comparison—of the *idiosyncrasies* of various musics would enhance our understanding of how a particular style of music develops, whether that process is through enculturation, cultural evolution, or otherwise.

However, we believe there is value in pausing to investigate some of the assumptions within the above statements. First, there is the assumption that science is more objective and less biased than the humanities. Second, there is the assumption that we can and should attempt to find universal truths about humanity. In synthesis, there is the assumption that the apparent objectivity and academic rigor of science makes it the best tool to carry out cross-cultural research into human universals, and that such work is necessary.

Without outright denouncing any one of these claims, we maintain that they are underpinned by the imperialist origins of the academy. To understand these origins, one simply must consider the social circumstances under which positivism was formed and popularized: that is, among the intellectual elite of 16th century Europe, comprised nearly entirely of western-European, affluent men. As mentioned above, positivism is a framework where objective truth is not only discoverable, but that it *should* be discovered. It assumes a *right* to know that is not a given in all cultures. Towards that end, the academies in Europe worked hard not only to generate knowledge, but to do so via a self-justifying scientific method. When the scientific method worked, it was proof of its own concept; when the scientific method did not work, it was simply proof that a different experiment was needed. More dangerously, when the scientific method worked repeatedly, it was proof that other knowledge systems were inferior, and ought to be eradicated—that is, non-scientists should be enlightened as to the superior method of finding truth, and scientists questing for truth should extend their search everywhere in the globe without impediment. Colonial expansion, the destruction of knowledge that would threaten the Empire (or the academy) and its underlying worldview, and the (often forceful) dismissal of concerns that some things ought *not* to be explored, were of course driven by other economic and social factors of the period. Nonetheless, the role of the nascent academy in this enterprise should not be overlooked. The consequences of positivism’s early “manifest destiny”

attitude are far-reaching, but at the very least include epistemicide, or the erasure of other knowledge systems, and extractivism, or the taking of knowledge from its place of origin to an “intellectual centre” (Hall & Tandon, 2017). Epistemicide, extractivism, and universalism are thus historical pillars of positivism, and they are still inconspicuously, dangerously present in music science to this day.

EPISTEMICIDE AND INCLUSION

There has recently been a buzz of discussion surrounding inclusivity, diversity, and equity in academia, including in music science. As a field, we of course must encourage the acceptance of, and engagement with, the diversity of epistemologies put forth by those we wish to include. However, we must take care not to merely assimilate their knowledges into the worldview of the academy, as doing so inherently divorces that knowledge from necessary context. In many psychology departments, minoritized students are nonetheless encouraged to conform to the status quo, taught to do research in the “correct” way, to “adapt,” and to ignore their cultural backgrounds (Teachers College, Columbia University, 2021). Indeed, our primary critique of Savage et al.’s (2021) 14 recommendations is that they tend towards an assimilative type of diversity rather than an inclusive or incommensurable (Tuck & Yang, 2012) type of diversity.

To clarify, representation can be achieved through recruitment and incentivization, but representation does not necessarily equate to diversity and inclusivity, let alone anti-imperialism and anti-colonialism. Achieving a diversity and inclusivity of cultures, epistemologies, theories of change, methodologies, and science infrastructures will require systematic change beyond mere tokenism. To assume that better representation automatically leads to diversity also places that onus of making change on those racialized people (of the global majority) that we are inviting to the table. We can add some nuance here: some racialized people will work within the dominant scientific culture and be comfortable with the status quo, some white people will work in different epistemologies (e.g., feminist, queer) and have to fight to be recognized in the dominant framework. The extra work towards inclusion being put on minoritized individuals can be summarized as “extra emotional and discursive labour” (brownamsavenger, 2017, as quoted in Robinson, 2020, p. 20). This labor may include explaining or defending a method, theory, or epistemology to colleagues, employers, or funders who work in the dominant science framework. It may include breaking through administrative barriers,

especially given legal differences between citizens and non-citizens in most countries. It may include dealing with micro-aggressions in the workplace or being the token “diverse” voice. One “diverse” seat on a board/committee is not enough: a critical mass of approximately 25–30% is required to create change (Yong, 2018). Considering these challenges, it seems ineffectual to remove barriers to access for minoritized researchers, yet not also remove barriers to intellectual and material inclusion. The global majority has been historically excluded from equal privileges within the dominant scientific framework; we should not invite them in only to stack on added burdens.

Jacoby et al. (2020) point out that collaboration with cultural insiders would welcome other epistemologies into music science, and they add that we must properly attribute and credit those knowledges, whether through acknowledgement and/or co-authorship.⁶ We add that we must also take care to be aware of, and attempt to mitigate, the power imbalances present in such collaborations. As Jacoby et al. (2020) acknowledge, there are “substantial power differentials between researchers and participants, or co-researchers, such as when researchers from wealthy institutions in the Global North conduct experiments with participants in the Global South” (p. 190). These power differentials are also present in any research done on Indigenous, racialized, and marginalized peoples in any nation-state. Ideally, participants who are being mistreated or who do not (or no longer) consent to a study can and will refuse to participate in the research, no matter the context. Unfortunately, fully free withdrawal from research may not always be possible under certain power differentials. While it is likely impossible to remove all power differences in all collaborative research, naming them is the first step towards mitigating them, undermining them and eventually dismantling them.

To be clear, a diversity of representation within the field is important; we must be able to hear many voices, both within our participants and our researchers. But all music scientists should share in the work of changing our scientific framework towards inclusivity, and engage in the process of unlearning, re-learning and creating

⁶ The reader will notice that not all workshop contributors are listed as authors on the paper. When we first began working on the paper, the plan was for the workshop organizers to have authorship and for the contributors to be named in the acknowledgements section. However, it was astutely pointed out by Pat Savage that perhaps we should re-think our authorship plan since we discuss it as appropriate credit more than once in this paper. We agreed and offered authorship to all of our contributors. Based on individual preference, some are authors and some are named in the acknowledgement section.

better research frameworks. As Savage et al. (2021) argue, and we agree, we must be proactive about making these systematic changes. We should be listening to the needs and ideas of minoritized people—inside and outside the field, written and oral, virtual and in person—and responding accordingly.⁷

EXTRACTIVISM AND COMMUNITY RESEARCH

Just as representation and inclusion can be weak forms of diversity when systemic barriers are not addressed, so can cross-cultural research be a weak—and harmful—form of knowledge diversification when the conclusions are taken out of context. Knowledge is often obtained “in the field” for presentation in the academic sphere, where it adds value to research and discourse, even despite the common and perhaps inevitable distortion of that knowledge upon entering this framework. Unfortunately, in many cases, equal value is not always returned to the communities where the knowledge originated. In critical literature, this research is considered “extractivist”—knowledge is extracted from communities for the benefit of the academy without any or with insufficient recompense (e.g., Gaudry, 2011). As Gaudry (2011) notes,

“Few researchers are willing to acknowledge a major responsibility to the communities that they study. Instead, their responsibilities are oriented toward the academy: either toward academic colleagues or toward some abstract notion of ‘truth’ (while failing to account for many other versions of this truth)” (p. 113).

Extractivist research relies on colonial relationships of power for its justification while simultaneously decontextualizing cultural knowledges and rendering these meaningless (Gaudry, 2011, p. 114).

Several existing projects within cross-cultural music science can be considered extractivist. We suggest that the work on the music of the Tsimane tribe of the Amazon, primarily studied by the McDermott lab (Jacoby et al., 2019; McDermott et al., 2016a, 2016b) is extractive. Non-extractive research ensures that communities, too, benefit from sharing their knowledge with researchers, and that they have a hand in the direction and dissemination of the research itself (Ball & Janyst,

2008; Gaudry, 2011). While it is clear that the McDermott lab benefits from the research (in terms of publications, career development, and grant funding necessary to carry out this research), it is unclear what material benefit the Tsimane tribe gained through participation in this knowledge transfer, or if community members had any involvement in the conception or design of the studies in which they participated. It is also unclear if or how the conclusions drawn by the researchers are contextualized within the tribe’s musical traditions (unlike Reyes-García & Fernández-Llamazares, 2019); ethnomusicological or first-hand reports of the traditions were not published alongside the scientific work. Thus, assuming the community was indeed involved and commensurated, the authors failed to make that fully transparent and to provide proper acknowledgement and detail.

Many other cross-cultural music science projects practice different types of extractivism, and the severity of the consequences may vary. Perhaps computational work is being done on archived recordings of a particular tradition, and it is unclear if the musicians and their communities were ever compensated, just as the context surrounding those recordings may now be missing—this is the case in Phillips’s work (Phillips & Brown, 2022) and studies that use older global corpora of music, particularly the Garland Encyclopedia of Music discography (Kuroyanagi et al., 2019; Sato et al., 2019; Savage et al., 2015, 2017). Perhaps researchers are exclusively interested in collecting data about non-Western participants’ physiological responses to stimuli, and therefore believe that an understanding of their cultural or musical background is unnecessary—this is often suggested in neuroscientific work. In any case, it does little good to the communities to merely label existing research as extractivist or not; we ought to be making a commitment as a field to be wary of these tendencies, to actively avoid them in our current and future work, and to consider if it is within our capabilities to provide post hoc commensuration to those communities from which our research has benefited, even if it benefited obliquely.

To avoid extractivism, our best recommendation is to consider community-based research (e.g., Ball & Janyst, 2008), insurgent (Gaudry, 2011) and other similar methodologies that entail more meaningful collaboration with the communities the research is targeting. Working *with* communities leads to research that can be valuable to both the community, researchers, and the academy, and that is grounded in the contexts of place and identity (part of the anti-colonial project; Liboiron, 2021a; Mohanty, 1988, 2003). This type of deep collaboration can address other methodological issues in

⁷ A caveat to this recommendation is that minoritized voices are overburdened with committee work that takes away from research time and is undervalued when it comes time to review a researcher’s “productivity” (for example for tenure dossiers in North America). However, the respond accordingly part is key; there needs to be more than ticking the “consult with/listen to minorities” box every time.

cross-cultural music research as well. For example, community involvement in the formulation of the research questions, and the selection of applicable measures and variables for the context of their own musical traditions, increases the validity of the research findings and reduces cultural biases that may otherwise be unwittingly built into the study design. The community itself is the expert in its musical tradition and culture; community practitioners are better informed than cultural outsiders on what may be pertinent to study and how to interpret the results.

Still, as in any collaborative process, the researcher also has a voice, and might bring new ideas or methodologies to the table, which should be duly considered and ultimately approved or rejected through discussion with community members. True collaboration ensures that everyone gets what they need from the research and that things are done in a manner considered ethical by all, enacting reciprocity and in turn halting extractivism and intellectual colonialism. One of our workshop respondents, Lee Veeraghavan, also suggests that what is given back⁸ by the researchers must be a material, tangible gain for the community, more than something that is simply “interesting” (Sauvé et al., 2022). And, as members of our panel pointed out, collaboration does not have to occur abroad or “in the field.” Indeed, Jacoby et al. (2020) recommend music scientists conduct research within their researcher’s own locality. Any metropolitan city (and many others) will contain a plethora of musical cultures, and working with these groups builds relationships within one’s own community, increases diversity in the project, and encourages place-based research. Furthermore, focusing on the cultures of one’s own locality enables easier relationship-building opportunities, as a lack of proximity was identified by Ball and Janyst (2008) as a major impediment to community-based research projects.

UNIVERSALISM AND SITUATED KNOWLEDGE

The issue of global proximity brings us to the topic of music universals. Universalism is arguably the most-debated issue in cross-cultural music science and must be addressed (e.g., Liboiron, 2021b). Hokowhitu (2016) argues that academic universalism is a characterizing feature of colonial epistemology, and that the project of finding universality in research is colonial.

⁸We can also critique the concept of giving back as upholding a benevolent narrative of wealth and deficit. Gautam Bhan instead speaks of “continuous and multiple engagements with communities and sites of research”, as discussed by Kim TallBear in “Standing with and Speaking as Faith” (TallBear, 2014).

As a field, we can resist universality and its colonial epistemology in different ways. We can embrace the incommensurability (see Tuck & Yang, 2012) of different cultural interpretations of music, as in ethnomusicology. We can strive to compare and to synthesize the commonalities and differences in music traditions as research builds over time. Both options have their strengths and their pitfalls. The first option wholly resists universality, while the second can but does not have to. Without comparison, it is difficult to assess the links between cultural and biological phenomena, which is often the goal in music science. However, universalism is often achieved by erasing the worldviews that contextualize or qualify apparent similarities (Hokowhitu, 2016), or by simply ignoring cultural differences that are not deemed important. Similarities obviously exist across our human species, and can be valuable; however, in attempting to find similarities the erasure of differences can and has caused material harm to entire populations of Indigenous and racialized peoples globally (Hokowhitu, 2016; Smith, 2013). When making cultural comparisons, we must carefully hold space for the complexity of similarity and difference rather than seeking the simplest answer, and we should always be ready to embrace difference and unintelligibility as a site of learning.

We have previously mentioned how the WEIRDness (Western, Educated, Industrial, Rich, Democratic -ness) of music science research is coming to the forefront of disciplinary discussion; nonetheless, most “differences” in musical traits and practices are still deemed as such by comparison to a Western “standard.” Of course, this is because comparatively more research has been conducted on Western participants; however, even that notion is worth deconstructing. Scientific participants are overwhelmingly white young university students from democratized, industrialized, Northern cities. Yet even if our previous suggestions are heeded, and cultural differences were to be investigated using a diverse pool of participants within the given university’s metropole, that city will still be located in a certain place and political context. One might ask if the musical traits of Canadian first-year undergraduates in Toronto are comparable to those of older farmers in rural India, but such studies are not common. Nor do we necessarily think that they should be; when the comparison is abstracted to such a length, and yet still only includes two specific demographics, what conclusions can be drawn from the results?

Ultimately, we suggest that research should be contextualized within its particular cultural framework, time, and place. The scientific method is not a *wrong*

way to search for truths, nor is it inherently “problematic;” it is merely one of multiple frameworks with its own limitations, and problems arise more so when it is treated as the *only* or *best* way to find evidence that then *must* be objective—or universal. The scientific method has value, but situating the knowledge it produces and qualifying its claims is integral.

This means, in a practical sense, disclosing who the research was conducted by, why it was conducted, where it took place, and who took part. It also means, in a more theoretical sense, understanding that all research has subjectivity and bias, because it is carried out by a human in a particular context. Full disclosure of these biases can promote what is called “strong objectivity,” leading to more “accurate, comprehensive, rationally justifiable and politically useful knowledge” (Harding, 2009, p. 195, as cited in Brabeck, 2021, p. 463). This is in contrast to “weak objectivity,” where a “dominant ‘objective’ worldview . . . claims research neutrality” (Brabeck, 2021, p. 463) is exposed “as a false universal that has unjust consequences for those who are not a privileged part of [the dominant group]” (Brabeck, 2021, p. 463).

Situating knowledge in this way is not just a practice that increases the validity of one’s science, but it is also inherently anti-imperial and anti-colonial (Haraway, 2003). All knowledge comes from a place, a culture, a Land, and has a relationship to that Land and culture. In short, situating knowledge helps us better understand the scope, limits, and biases of any piece of research. Indeed, “all inquiry reflects the standpoint of the inquirer; all observation is theory laden. There is no possibility of theory- or value-free knowledge” (Denzin, 2017, p. 12).

Situating knowledge can be challenging within the format of a standard research article. By convention, scientific writing uses the passive voice almost exclusively, which makes it difficult to include reflexive details and often obscures the fact that the research was, indeed, performed by particular human beings. Using active voice, which is already common during the oral presentation of research, would convey stronger objectivity about the research that was carried out.

Likewise, although locations are often mentioned in the methods section or implied by author affiliations, more demographic information can be useful, as long as participants cannot be identified by it. For example, participants could be free to self-identify (or withhold) their ethnicity as part of the research’s demographic survey, rather than check a pre-determined box. While this approach would add some nuance, the risk is that participants from a small sample could be identifiable

even from anonymized data. The granularity of demographic disclosure is at the discretion of the authors, which, in participatory or community research, includes the participants; therefore, these choices can be collaboratively informed.

Finally, disclosing more knowledge about the authors and their motivations can also situate research. Portions of the authors’ identities, such as academic backgrounds and identity labels, could be included in author notes (Brabeck, 2021). Sometimes these details are elaborated elsewhere for certain members of the research team, especially when that researcher is not an author of the final research article (e.g., Billings et al., 2021, p. 4). Beyond identity-relevant information, the motivations of the research could also be disclosed within the article, or in addendums to the article. Currently, scientific articles frame research as motivated by previous literature and theory—often, the motivation is shown implicitly by the authors’ interpretation and selection of previous literature. However, explicit acknowledgement of the authors’ interest in the research is excluded. Ostensibly, this exclusion is for the sake of professional distance, but we believe that disclosing motivation only increases scientific objectivity.

Again, this is information that is already included in most forms of oral research presentation. Many conference presentations, and nearly all dissertations, are framed as narratives, which begin with the researcher’s personal attachment to the subject, and include their journey of developing the questions, hypotheses, and methods, ending with their interpretation of the results and where they, personally, see the research going in the future. It is only in writing—that is, in the more-permanent archiving of our research knowledge—that these details are excluded, and the context of the research is stripped for the sake of scientific writing conventions. Indeed, it is interesting to think about what we leave out of our writing, given the viewpoint in much of the Western world that writing is the supremely valid form of archiving knowledge. The pervasive idea that knowledge is not valid unless it has been written down or recorded is strange, and outright damaging, and has led to the loss of an unknown amount of orally transmitted knowledge. What are we implicitly validating and invalidating by what we choose to include and to leave out of our writing? Along the same lines, reflexivity is a skill that takes practice. Isn’t it interesting whether you are researching out of pure curiosity, in response to a life experience or the life experience of a loved one, or to address an unfinished line of research or specific community need? All are valid and add a rich humanism to our

research, as well as stronger objectivity. For more on critical qualitative scholarship as a model for situating knowledge and strong objectivity, Richardson (2000) and Reid, Greaves and Kirby (2017) are good places to start.

METHODS

Positivist and critical research frameworks ask fundamentally different questions, and music science research can operate in either framework, or indeed an entirely different framework outside the focus of the current discussion. However, it can be argued that cross-cultural research cannot ever be entirely positivist. First, given that a definition of culture itself is fuzzy and cultures are ever-changing, it is unlikely that there exists a fundamental truth to be discovered in any research involving culture. Second, given that culture is generated by people, and that “post-positivists claim that the world exists apart from our understanding of it, while constructivists insist that the world is created by our conceptions of it” (Morgan, 2014, p. 4), it would be difficult to carry out positivist cross-cultural research, which is constructivist by necessity. Additionally, as mentioned, positivism has an intricate history with colonialism and imperialism (Hokowhitu, 2016). Finally, collaboration with participants immediately subverts the positivist framework, because in positivism, only the researcher can know, while participants can only be known.

We have suggested some broad methodological approaches to cross-cultural research above, all of which are possible in a scientific, if not strictly positivist, research framework. To summarize: in carrying out studies, aim for community research; in presenting research, aim for situated knowledge; in creating research environments and projects, aim for systematic inclusion. However, these suggestions themselves prevent us from providing general methodological recommendations for cross-cultural research. In community research, the participants collaborate with the researcher throughout the planning process (Ball & Janyst, 2008). Each project depends fundamentally on its time and place. Moreover, the research methods will always depend on the research question.

What questions are we asking in music science, and which are we not? Who is doing this asking, and are we the ones who *should* be asking those questions, or doing that research? These questions are a part of reflexivity, and researchers should be able to readily provide answers to these questions—preferably within their published research. As O’Brien puts it:

“There are infinite questions that you could ask about the universe, but as only one scientist, you must necessarily choose to ask only certain questions. Asking certain questions means not asking other questions, and this decision has implications for society, for the environment, and for the future. The decision to ask any question, therefore, is necessarily a value laden, social, political decision as well as a scientific decision (O’Brien, 1993, p. 706).”

Therefore, although we cannot make specific methodological recommendations, we do recommend, in addition to our previous suggestions, that researchers practice reflexivity, acknowledge the limits of their experience, and seek collaborations and interdisciplinary scholarship. All of the above will expand the quality, number, and scope of research questions they can address. For a music scientist to address the limitations and lack of context provided by the scientific method, they can collaborate with a social sciences or humanities scholar that can provide qualitative research to supplement their results, or with a community expert that can enrich the study with first-hand knowledge and deeper understanding. If done reflexively and with care, conducting such “mixed methodologies” or blended research is a powerful way to combine the strengths of both postpositivist and critical approaches.

Mixed methods designs have become more popular in music health (Bradt et al., 2013) and education (Conway, 2020) research, but are still not common practice in music psychology and other fields of music science. (For a fascinating example of community-based mixed methods research in music health, see one of the keynotes presented at ICMPC-ESCOM 2021 where our workshop also appeared; Sanfilippo, 2021; Sanfilippo et al., 2020; <https://www.youtube.com/watch?v=nWXxzVasURk>.) For example, one mixed methods study in music psychology aimed to pin down what constitutes a “phrase” in sound-based music by comparing qualitative analysis (listener descriptions) and quantitative analysis (computational music-information data) of the same musical stimuli (Olsen et al., 2016). This approach allowed the researchers to model which acoustic features best accounted for the perceived phrase structures given by actual listeners. We can also find examples in research on sad music (Vuoskoski & Eerola, 2012), dance (Stevens et al., 2003; Stevens et al., 2011), musical treatment for dementia (Garrido et al., 2017), performance movement and embodiment (Broughton & Davidson, 2016), music education (Meissner & Timmers, 2020), and listening niches (Hurwitz & Krumhansl, 2021), to name a few.

Imagine if a similar research approach was taken to address one of the most challenging questions in cross-cultural music study: what constitutes a musical “note” (Proutskova, 2019)? This fundamental question, and others like it, can never be fully tackled with any one methodology, disciplinary framework, or cultural perspective. Blended methods and diverse epistemologies are capable of clarifying the internal processes, data ambiguities, and knowledge gaps that would otherwise go unaddressed.

Nonetheless, some methodological issues arise regardless of the researcher’s questions and discipline. Every research project must thoroughly consider its participation ethics, data ownership, and stance towards open scholarship and reproducibility. As such, we will briefly discuss these issues from the lens of cross-cultural music science and provide some advice on how to tackle them from an anti-colonial/imperial standpoint.

As many heavily researched Indigenous peoples can attest, institutional review board (IRB) approval does not necessarily ensure ethical research (Anderson & Cidro, 2019; Sherwood & Anthony, 2020; Tauri, 2018). IRB approval is necessary for any research conducted on humans and vertebrates (separate review boards). Obtaining it is an essential step to any research carried out through an institution, and therefore cannot be avoided. However, IRBs are a colonial institution. As such, IRB protocols generally identify marginalised peoples as vulnerable and at a deficit, when in reality they are empowered yet oppressed, and quite capable of identifying what is or is not ethical. IRB protocols are designed to primarily protect institutions from the negative repercussions of having carried out unethical research (e.g., Arbour & Cook, 2006; Garrison, 2013; Wiwchar, 2000). IRBs are not designed to protect the people on which the research is carried out. Notice that we do not say “people with which the research is carried out,” because IRB guidelines do not lend themselves well to community work; rather, protocols, recruitment, and consent are expected to be rigidly prescribed rather than fluid (Anderson & Cidro, 2019, p. 226). IRB guidelines also prioritize the universal rights of people, ignoring differences, and prioritize the rights of the individual, ignoring the rights of the collective (Tauri, 2018).

In contrast, an anti-colonial approach to research ethics recognizes and respects the autonomy and sovereignty, where applicable (for example, the queer community in a given geography is not sovereign in the way an Indigenous nation is sovereign), of the communities with which research is conducted, and co-constructs the

guidelines of ethical conduct with the communities. For more details on Indigenous critiques of IRB ethics protocols, see Anderson and Cidro (2019), Sherwood and Anthony (2020), and Tauri (2018). Jacoby et al. (2020) recognize these issues, and we also recognize that we cannot get around IRBs. We believe that IRBs are another site where systematic change is needed. Consequently, researchers may consider working with or joining their institutional IRB to increase the flexibility of their ethics applications, allowing them to adapt to many projects rather than forcing projects to fit into IRB requirements.

Relatedly, we suggest scientists re-think their understandings of data ownership. As Schnarch (2004) argues, communities who contribute knowledge to research processes should remain in control of that knowledge and its products through the principles of ownership, control, access, and possession (OCAP). The principles of OCAP, which are considered a base for ethical research with Indigenous communities in Canada, not only foster Indigenous self-determination, but center Indigenous research priorities and build research capacity in Indigenous nations (Rowe et al., 2021). However, the OCAP principles present a minimum, and increasingly inadequate, baseline from which to conduct research and to think about data sovereignty. Ball and Janyst (2008), for example, implement the more holistic set of ethical principles of inclusion, reciprocity, and relevance in their community-based research, the *Indigenous Fathers Project* and the *Indigenous Child Project*. Their approach incorporates Indigenous community participation from the research inception through to dissemination of research findings.

Integral to ethical research with Indigenous community members, and indeed to data sovereignty, is the need for researchers to devote significant time to building good relationships with the communities in which they work (Ball & Janyst p. 39; see also Gaudet et al., 2020; Henry & Tait and the community organization STR8 UP, 2016, str8-up.ca; Wilson, 2008). Relationship-building can take many forms, all of which take time and resources, but can include the hiring of community members as Research Assistants and Project Coordinators to help complete the project (Ball & Janyst, 2008, p. 41), implementation of participant suggestions for research design, realization, and dissemination of its findings (pp. 41–42), as well as the appropriate use, storage, and access of data and analyses garnered from the research process (as determined by the participants and community) (p. 40). Specifically, logistical considerations such as data storage,

anonymity, de-identification, and capacity to retrieve and share data when requested, all need to be discussed with all research partners. For example, not all Indigenous communities have servers on which to store data; in this case, an agreement may be reached securing external storage but maintaining access and control over data sharing permissions. When these ethical and logistical requirements are met, research participants become more involved in the research process, becoming research *partners* who can co-direct all aspects of a research project to align with their needs and ethical concerns, including the management of the final products.

In the context of music research, issues have been raised surrounding secondary use (and potential exploitation) of data, especially around musical recordings (Jacoby et al., 2020; Robinson, 2020). Historically, musical recordings were taken from communities, often in the name of preservation, by typically well-meaning anthropologists. Note that the need to preserve aspects of a “disappearing” culture tells us that assimilation and genocidal policies were very much working as intended. However, a recording separates a song from its context. Archived recordings today, which may only be identifiable by a name or even track number, may be highly specific to a certain ceremony or process in a certain cultural group (Robinson, 2020). The loss of context allows for easy assimilation into Western music, for example when throat singing is combined with an orchestra or an Indigenous song’s melody is “quoted” in a settler work (i.e., work by Alexina Louie, R. Murray Shaefer in Canada). It also allows for misinterpretation by Western music analysts, who look at musical content, not context (e.g., Mehr and McDermott’s works).

In short, we must allow *communities* to choose to share knowledge and research results with *researchers*—or not—depending on their needs, capacities, and interests. Data ownership, control, access, and possession principles need to be discussed with community members when entering into or entertaining any potential research project (see Anderson & Cidro, 2019; Ball & Janyst, 2008; Schnarch, 2004).⁹

Reproducibility, a core concept of positivist science and its current crisis, can also be both assimilative and colonial without proper application. Savage et al. (2021)

acknowledge that reproducibility may not be meaningful for certain contexts, though do not use the words assimilative and colonial as we do. This is not to say that reproducibility should be thrown out. It has its place—and is very important—within the epistemology of the dominant scientific worldview. Reproducibility can become assimilative and colonial when it is applied outside of that largely Euro-American scientific context. Ball and Janyst (2008) also point out that while researchers are quick to impose their own metrics, such as reproducibility, for a project’s validity and success, the reciprocity of strong research-partner relationships requires that the community members also establish and see implemented their own metrics of validity and success (pp. 40, 45).

There is also a developing feminist critique of open science (Bennett, 2021; Brabeck, 2021) that asks important questions about who is left out of the open science movement and how, with suggestions on how we can do better. Brabeck (2021) first identifies open science as “both a feminist and an ethical issue because the production, dissemination, and control of access to information and knowledge dissemination are all issues of power” (p. 457). The questions she raises in this feminist critique are equally valuable to pose from an anti-imperial and anti-colonial perspective.

When it comes to reproducibility, what studies actually get replicated? What methods and participants are invalidated and excluded? When it comes to open access, who owns the data made openly accessible? Will scholars who do not collect traditional data be pushed out? How do we find openly accessible scholarship? Search engines like Google are major players in accessing knowledge (i.e., Google scholar), but how are they operating? As it turns out, Google is demonstrably sexist and racist (Hawkins, 2021; Noble, 2018). Who pays for open access, and how does having the power to pay allow one to set the rules for access? Whose experiences and ideas are included in the design of open access policies and practices? More broadly, what values are upheld by the open science movement?

Brabeck (2021) offers an example of how a cross-cultural research project’s commitments to open science and reproducibility must be fully considered in an anti-imperial context. In an overview of 49 open science policies, documents, declarations, and statements, improving the quality of science was tied to increased citations and reproducibility, quality control, and competition (Albornoz et al., 2018). However, in Kenya, quality “is defined as the usefulness of the research to its local context” (Brabeck, 2021, p. 458).

⁹There is so much more that could be said about institutional ethics that is not in the scope of this paper. However, we do encourage the interested reader to read the papers we reference in this paragraph, as well as those referenced in the Savage et al. (2021) critique for an introduction.

The above are only some of the important questions raised by Brabeck (2021) in this critique. She closes by offering seven recommendations, which we will reprint here: curate and provide internet that is safe for all to access; reveal who is writing the open access policies and practices that govern open access outlets and mandates; insist that researchers engage in reflexivity and identify their positionality; foster the skills needed to engage in an open access knowledge base and apply it in useful ways; privilege research approaches that reveal the complexity and nuance of underrepresented groups; include attention to the ethics of open access publishing in the APA Ethics Code; and change university policies and the fear associated with breaking tradition (Brabeck, 2021, p. 470).

Anti-colonialism/Imperialism in Music Science Research

In this article, we have reviewed a few critiques of cross-cultural music science that have already been printed and reiterated their valuable suggestions. We have also brought up other critiques regarding the relatively unaddressed imperial and colonial influences in cross-cultural music science. Specifically, we have pointed out that collaborative inclusion and community research is preferable to diversity as assimilation and extractivist research. We have suggested that mixed methodologies and situated knowledge may supplement the weak objectivity put forth by typical positivist approaches to music science. Lastly, we have questioned the proposed reliance on review boards and the ethos of other scientific reform movements to automatically tell us what is ethical in cross-cultural research. We have offered many personal recommendations to cross-cultural music researchers and suggested a few larger systemic changes.

Generally, we feel that it is still vital to continue discussing these issues, and to seek solutions by incorporating the perspectives and methodologies of non-WEIRD academics, non-science disciplines, and non-academic communities. We also believe that a focus on explicitly anti-colonial and anti-imperial research within music science may shed light on other forms of bias within our research, including sexism, ageism, class bias, and able-bodied bias. Bringing up these issues also

prompts thought about the institutional barriers to their implementation, especially the systems in academia that incentivize fast, constant, and prestigious (in this case, quantitative) publication. The aim of critical research is to highlight such issues, to prompt researchers to think about the weaknesses in and potential avenues of improvement for our work, and in our field. Hopefully, we can all strive to take these issues into due consideration and to address them to the best of our present abilities, both as individuals and as a community.

For further reading about the content of the workshop itself, including many quotes from our panelists, the preprint summary can be found here: <https://psyarxiv.com/bt6zn/>.

Author Note

Authors S. A. Sauv e, E. Phillips, and W. Schiefelbein contributed equally to this work.

This paper was written after the first authors organized the ICMPC-ESCOM 2021 workshop “Cross-Cultural and Decolonized Research,” a summary of which can be found in Sauv e et al. (2022). Therefore, despite the slightly different titles, the workshop and the paper have the same impetus.

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Correspondence concerning this article should be addressed to Dr. Sarah Sauv e, School of Psychology, Sarah Swift Building, University of Lincoln, Brayford Pool, Lincoln, LN6 7TS, United Kingdom. E-mail: ssauve@lincoln.ac.uk

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