The Science-Music Borderlands

Reckoning with the Past and Imagining the Future

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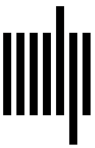

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18 Building Sustainable Global Collaborative Networks: Recommendations from Music Studies and the Social Sciences

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Introduction

Diversity is one of the key challenges facing many societies in the twenty-first century. In scholarly research, this challenge has crystallized around the overrepresentation of and overreliance on societies that are WEIRD: Western, educated, industrialized, rich, and democratic (Henrich et al., 2010). This acronym has been critiqued (Clancy & Davis, 2019; Barrett, 2020), and even its creators emphasize that WEIRD is a rhetorical device not intended to suggest a binary opposition with non-WEIRD (Apicella et al., 2020; Muthukrishna et al., 2020). However, the acronym has become popular for framing issues of inclusion and representation in academia. In music studies, this involves the historical overrepresentation of music by European classical composers and the overrepresentation of undergraduate students at Western universities in participant samples (Thompson et al., 2019; Jacoby et al., 2020; Savage, in press).

These issues have gained visibility within the mainstream, particularly following calls for decolonial research approaches (Mignolo, 2011) and the rise of the Black Lives Matter movement. Efforts to decolonize music studies and make them more inclusive and equitable (e.g., Ewell, 2020; Brown, 2020; Iyer & Born, 2020; Diamond & Castelo-Branco, 2021; Sauvé et al., 2021) have been covered by the *New York Times* (Powell, 2021) and *Fox News* (Betz, 2020). In the United States, they have triggered important changes at the highest levels of the organizational structure of the Society for Ethnomusicology (SEM) and prompted the board of the Society for Music Perception and Cognition to publish an antiracism statement (Baker et al., 2020). These changes are part of a broader, long-term international trend, as evidenced by the International Council for Traditional Music (2021) issuing a statement on the topic and instituting a year-long series of dialogues about the decolonization of music and dance studies.

A number of music science publications have highlighted both the momentum for change and the challenges that remain. For example: Thirty-five authors published the results of rhythm perception experiments involving 923 participants from thirty-nine participant groups in fifteen countries (Jacoby et al., 2021); nineteen authors published analyses of 4,709 ethnographic documents and 118 audio recordings of music from around the world (Mehr et al., 2019); eighteen authors published a global database of performing arts, including analyses of 5,779 songs from 992 societies (Wood et al., 2021); and twenty authors published a critical discussion of the challenges of and potential for cross-cultural work in music cognition (Jacoby et al., 2020). Some have praised the ambition of these global multidisciplinary collaborations, but others have voiced concern that they may actually reinforce preexisting power structures and hierarchies through the overrepresentation of authors from well-funded science programs in elite Euro-American universities and through the use of scientific methods to identify potential cultural "universals" (see Russonello, 2017; Rasmussen & Cowdery, 2018; Savage, 2018; Yong, 2018; Woo, 2019; Jacoby et al., 2020; Loughridge, 2021; Sauvé et al., 2021).

Similar challenges are shared by fields outside of music studies, which have also grappled with the WEIRD concept, its relationship to race and racism (Clancy & Davis, 2019), and the related issue that WASP (Western, academic, scientific, psychology) researchers tend to be overrepresented in cross-cultural research (Sinha, 2002; Berry, 2015). Social science fields such as anthropology, economics, and psychology are already making progress on practical solutions to enable sustainable global collaborative research (e.g., Henrich et al., 2005; Banerjee et al., 2015; Jabbour & Flachsland, 2017; Purzycki et al., 2022; Moshontz et al., 2018; Broesch et al., 2020; Byers-Heinlein et al., 2020; Urassa et al. 2021; Parker & Kingori, 2016; Barrett, 2020; Haelewaters et al., 2021).

The aim of this chapter is to provide concrete recommendations for moving beyond the traditional overreliance on Western music and musicians and toward sustained collaborations that include members of diverse societies throughout the world as equal partners in shared research practices and as part of an ecology of knowledge (de Sousa Santos, 2007; Sardo, 2017; Schippers & Grant, 2016). These recommendations are not intended to be onerous, prescriptive rules but rather suggestions to encourage progress and create excitement about future opportunities. Our goal is not to discourage cross-cultural research that doesn't follow these recommendations but rather to encourage more research and provide practical guidance to help realize this goal.

Based on the lessons of an earlier symposium focused on bridging ethnomusicology and music cognition (Jacoby et al., 2020), the first three authors of this chapter (PES, NJ, and EHM) organized a symposium entitled "Building Sustainable Global Collaborative Research Networks," with a goal of attracting global participants and a desire

Figure 18.1
The twenty-three participants at the February 7, 2021, virtual symposium "Building Sustainable Global Collaborative Research Networks" (https://www.ae.mpg.de/glo-co).

to learn best practices from fields outside of music studies. This symposium featured a group of twenty-three researchers and practitioners whose expertise was roughly equally distributed among (ethno)musicology, music cognition, and other social sciences (figure 18.1).[1]

Prior to the symposium, invitees were asked to submit ideas and resources related to best practices. After a careful review by the symposium organizers, four overarching themes emerged: (1) diversity, inclusion, and equity; (2) logistics; (3) reproducibility and standardization versus cultural specificity; and (4) incentives, attribution, and leadership. Participants discussed these ideas in groups of five to six people. The following sections synthesize and summarize our shared conclusions about best practices for each of these four key themes.

Diversity, Inclusion, and Equity

How do we enhance representation in global collaborations? The importance of diversity is widely recognized, but achieving inclusive and equitable representation in global collaborations is easier said than done. Many of the documents cited by ourselves and others that emphasize diversity in cross-cultural research were coauthored mostly

or entirely by researchers from elite Euro-American universities (e.g., Broesch et al., 2020; Jacoby et al., 2020). Such imbalance reflects a variety of power structures, including extractive legacies of colonialism as well as practical barriers of language, politics, economics, and disciplinary conventions. Overcoming such legacies and barriers requires rethinking research methods that many of us have come to take for granted. It requires affirmative action to compensate for historical power imbalances and underrepresentation, and it requires us to ensure that research goals serve the interests of both the researchers and the communities. Many companies, governments, academic societies, indigenous communities, and other organizations have begun to develop best-practices guidelines for diversity and inclusion, and these can vary substantially, depending on the specific goals and needs of the organization (e.g., Kirkness & Barnhardt, 1991; Awesti et al., 2016; Boatright et al., 2018; Chambers et al., 2017; Laland et al., 2022; Nature Editors, 2020; Muru-Lanning, 2020). Below we outline some best practices specifically tailored to build sustainable global collaborative networks.

Goals and leadership: The goals of the collaboration should be aligned with the needs of the communities involved. The best way to accomplish this alignment is to ensure that the relevant communities' voices are heard and reflected at the highest levels and earliest stages of a planned collaboration, ideally by involving representatives of these communities in the initial decision making. The benefits of early collaborative planning need to be balanced against the realities that (1) involving too many people can reduce the ability to make high-level decisions efficiently, and (2) members of underrepresented communities are often disproportionately burdened with requests to represent that community. Such constraints can result in unintended negative consequences, such as incentivizing the inclusion of so-called diverse members in ways that "tick the boxes" for diversity on paper only. At a minimum, we recommend identifying and recruiting stakeholders representing diverse communities at all levels, beginning at the outset of a project and proceeding through shared research practices. To facilitate such recruitment, some organizations have created informal lists (e.g., a list of evolutionary human sciences researchers belonging to underrepresented minority groups: https://diversifyehs.mystrikingly.com/) or formal networks (e.g., the International Council for Traditional Music [ICTM] network of music and dance researchers from more than 100 countries: http://ictmusic.org/world-network). These lists and networks should be combined with discussions with local stakeholders, and care should be taken to ensure that power imbalances are not perpetuated locally (e.g., research on lower-caste musicians performed exclusively with higher-caste local collaborators).

Interdisciplinary collaboration: Global research collaborations are often driven by the interests and funding of scientists, sometimes at the expense of researchers from the

humanities or members of the public outside of academia. This is particularly pertinent when the focus is a research area, such as music, that involves practices unfamiliar to the scientific community. Thus, it is essential that researchers sincerely engage with other methods and values. For example, qualitative and quantitative methodologies should be considered, as well as research outputs such as artistic performances, community workshops, and blog posts, in addition to academic outputs such as peer-reviewed journal articles. For such outputs, it is important to negotiate issues such as authorship and compensation early on. In some societies or disciplines, having one's name listed as a coauthor on a scientific article has little value compared to being paid as a consultant or research assistant, while in others, the reverse may be true. Even within scientific communities, norms regarding authorship and attribution are heterogeneous and rapidly evolving. Describing the process taken to involve local researchers and advisers can be helpful, regardless of whether they are acknowledged as coauthors (Thompson et al., 2019).

We recommend recognizing contributions to research networks through both financial (e.g., consultation fees, grants, experiment costs) and intellectual (e.g., coauthorship, author contribution statements, named acknowledgments) mechanisms, as well as ensuring access to, and credit for, research-related outputs (e.g., making archival or field recordings available to community members or providing high-quality video recordings for musicians to use in their own promotional materials). For example, a project measuring global diversity in rhythm perception led by one of us (NJ; Jacoby et al., 2021) includes thirty-four authors—scientists, (ethno)musicologists, and musicians—from fifteen countries (Germany, Austria, Sweden, USA, UK, Canada, Japan, South Korea, China, Chile, Bolivia, Uruguay, Mali, India, Turkey) and names fifty-one individuals and organizations in the acknowledgments.

It is imperative to ensure that the recognition received by researchers and participants is specifically of value to them. This does not necessarily mean formal coauthorship (e.g., Araújo & Cambria, 2013; Miguel, 2018). For example, in a project exploring musical diversity in India (Daikoku et al., 2020), the graduate student leading the project (our coauthor HD) is from India and receives both financial support (a stipend and tuition funded by Yamaha) and intellectual credit (first authorship). He is working with musicians in India to take music lessons and conduct interviews and experiments, and these musicians receive financial compensation but not coauthorship. It is also important to recognize that in some communities it may be considered inappropriate to explicitly discuss such rewards; as always, these suggestions should be adapted to the norms of the local context.

Language, geography, and accessibility: The current concentration of academic power in English-speaking countries incentivizes us to organize events and collaborations in

English, such as the symposium that led to this chapter (which is also written in English). This marginalizes members of non-Anglophone communities and creates barriers to their inclusion in global research networks. Providing travel funding can minimize some economic barriers but does not solve other problems, such as language barriers, visa restrictions, and other factors that can limit participation. While it may seem inefficient to hold meetings in other countries using languages other than English, given the additional costs for travel, translation, and the like, these short-term costs are necessary to build long-term sustainability. ICTM is an example of an academic society that has successfully organized in-person world conferences in diverse countries with multilingual translation (e.g., South Africa in 2009, Kazakhstan in 2015, China in 2018, Thailand in 2019 featuring papers in English and the local language), as well as virtual events in English and other languages (e.g., "ICTM Dialogues 2021: Towards Decolonizing Music and Dance Research"; ICTM, 2021). The rapid normalization of virtual participation due to the COVID-19 pandemic may help reduce barriers and costs associated with travel, but it will not solve language issues and may create other imbalances.

To actively reduce such barriers to participation, we recommend organizing events in diverse geographic locations using diverse languages, providing opportunities for translation, and making virtual participation as accessible as possible (e.g., for participants with disabilities, those with caregiver obligations). This may go beyond the literal translation of language to include the conceptual translation of ideas, which may need to be entirely rethought and reformulated in terms that are more relevant to the participant communities.

Logistics

How can we minimize logistical challenges in global collaborations? Even research within a single society involves substantial logistical challenges, and these are amplified drastically when conducting global collaborative research. Different societies have different rules, norms, and institutional structures. Collaborating in a meaningful way therefore requires careful planning, including considerations such as organizational structure, funding, and ethical review.

Project management: Building and sustaining a global collaborative network requires a clear leadership structure that balances flexibility and agency for individual researchers and labs in different societies with a clear, unifying vision and strategy. In service of this aim, we recommend balancing top-down (e.g., standardized protocols) and bottom-up (e.g., local adaptations) approaches to project management. For example, the Evolution of Morality Project developed standardized and validated methods of measuring

cooperation and morality cross-culturally but adapted these methods according to the relevant belief systems of the fifteen societies investigated (Purzycki et al., 2022). Likewise, Jacoby et al. (2021) provided researchers in different societies with standardized, thoroughly piloted, and well-documented equipment and protocols for rhythm experiments, but they partially delegated decisions about translation and appropriate participant sampling to local researchers (while maintaining a consultation role to ensure that the sampling rationale remained consistent across societies). The equipment was designed to be portable and flexible, allowing researchers to conduct experiments in remote areas with unreliable infrastructure.

Funding: Funding logistics can be particularly complicated for global collaborations. Economic and geopolitical power imbalances mean that some countries offer more funding than others, and they may limit the countries to which funds can be transferred. The complexity of global collaborations often requires retracing steps and pivoting to different approaches at key junctures in the research, making it challenging to specify and follow long-term funding timelines. In addition, extra funding needs may arise that are difficult to fully anticipate at the time of funding applications. For example, the ManyBabies Consortium (Byers-Heinlein et al., 2020), in an ongoing collaboration with scientists from various nations in Africa, did not originally budget for institutional review board (IRB) fees, which are not usually charged in Western universities but are common in some academic communities. After obtaining initial funding, they learned that many collaborators would need to pay the equivalent of US$500 to each of their institutions. This unanticipated expense impacted other components of the project's budget. We recommend identifying collaborators prior to writing grants and then jointly crafting detailed budgets that accommodate the range of expenses involved in global collaborations.

Ethical review: Many of the logistical issues involved in global collaborations intersect with ethical issues related to disparities across different sites. These range from specific practical issues (e.g., compensation, data management, and anonymity of participants) to more general ones, such as how to ensure the research is helping and not hurting the local community. IRBs are a formal mechanism for evaluating such issues, although they have been criticized for being "more concerned with protecting the institution than research participants" (Grady, 2010). However, if they are well stewarded, IRBs can clarify the rights and obligations of everyone involved in the project early on, avoiding unfortunate situations later. For example, of the approximately 6,000 music recordings at the Global Jukebox (Wood et al., 2021), about 1,000 from indigenous groups in North America and Australia will not be available for listening until time-consuming negotiations with representatives of each individual group have been completed. These problems might have been avoided if such issues had been clarified in IRB protocols

at the beginning of the project (although the Global Jukebox project began more than half a century ago, before IRB input had become standard research practice). For societies without local IRBs, we recommend applying the highest standards to protect the rights of participants and avoid ethics dumping (Schroder et al., 2018; Nature Editors, 2022). It is also crucial to realize that the principles of IRBs may not be appropriate in all cultures, such as a hierarchy or consensus culture that makes individual consent meaningless. As in the "project management" section above, we recommend adopting a combined top-down–bottom-up approach in which general IRB protocols are prepared in consultation with diverse team members, and these standardized protocols are then adapted to local institutions as necessary.

Accessibility: Setting up easily accessible online data collection can reduce the logistical costs of traveling to remote areas, especially when travel is not physically possible (e.g., during the COVID-19 pandemic). Some communities benefit from the ability to use mobile phones, where experiments, questionnaires, and the like can be implemented using responsive web-based applications. These methods are sometimes insufficiently embedded in the cultural context and don't allow much control over the conditions in which the experiment takes place. However, such concerns can be mitigated by taking appropriate precautions (e.g., prescreening tasks, data quality checks, bonus payments). This is true even for highly controlled experiments, such as infant research (Tran et al., 2017), language production tasks (Vogt et al., 2021), or iterated tapping experiments (Jacoby et al., 2021). Online data collection has had considerable success (Kohavi & Thomke, 2017) and is likely to become a mainstay of research methodology. We recommend including online options when feasible to enhance accessibility and diversity.

Reproducibility and Standardization

How can we ensure meaningful, repoducible, and standard comparisons on a global scale?

Reproducibility: Increasingly popular open science practices enhance transparency and reproducibility through the free sharing of data, analysis code, stimuli or protocols, preregistered hypotheses, and research reports via repositories such as Open Science Framework, Github, Zenodo, arXiv, and related preprint servers. However, the need to preserve and promote diversity sometimes works against this tendency toward openness and standardization. Many historically underrepresented minorities are wary of having their personal data documented and shared in forms they cannot control, given the atrocities and humiliation they have experienced in the name of science

(Brandt, 1978; van Noorden, 2020). Here again, we recommend using the IRB process as an opportunity to specify data-sharing procedures and grapple with the associated ethical considerations early on. In addition, we recommend prioritizing the sharing of stimuli, protocols, and analysis code, even when sharing participants' data is more complex.

Standardization and translation: Even when diverse participants provide informed consent, cross-cultural differences mean that standardized research metrics, such as IQ, can at best be considered meaningful only when interpreted cautiously and at worst can be meaningless or actively harmful (Pawlowski et al., 2020). The same caveat likely applies to attempts to measure other things that lack cross-culturally universal definitions, such as "music" (Savage, 2019), "musical sophistication" (Müllensiefen et al., 2014), or "musical IQ" (Neely, 2020). Building sustainable global collaborations requires us to constructively address such challenges. We recommend collaborating with local researchers to develop, translate, and adapt questionnaires, experimental stimuli, and protocols to ensure that the resulting data can be used to make meaningful comparisons. The limitations of existing inventories should be acknowledged, and the possibility of completely reframing ideas from alternative perspectives rather than simply translating them should be explored (cf. Harris, 1976). When possible, subjective self-report measures (e.g., daily practice time) should be combined with objective measures (e.g., beat synchronization; Müllensiefen et al., 2014). Although no index for terms such as *musicality* and *musician* will ever be perfect, we believe that creating indices that are more thoroughly cross-culturally validated than existing ones is a constructive goal. Promising steps have already been made through cross-cultural collaborations (e.g., a Chinese translation of the Gold-MSI musicality index; Lin et al., 2019). (For discussion and critical analyses of these concepts, see the chapters in this volume by Patel, Mundy, and Ilari and Habibi.)

One possibility is to aim for comparability at the conceptual level of the latent construct to be measured in different cultures. For example, for the construct "musical expertise," researchers from different musical cultures might agree that measurement on a unidimensional scale ranging from low to high would be meaningful. Once this is agreed on, it might be possible to create different inventories with questions specific to each culture, thus measuring the same construct by asking different questions. Similarly, researchers might agree that a specific musical skill (e.g., intonation accuracy) is important in their cultures. Several different versions of a perceptual test could then be developed, each version using stimuli that are culturally meaningful to each culture, and each version being validated with a sample of participants from the corresponding musical culture. Scores of the task could be made comparable by using a scoring metric

that does not depend on the individual test items (e.g., item response scoring or Rasch modeling). Such efforts should take advantage of existing methods for establishing comparability of scale or questionnaire-based measures across groups, using techniques such as measurement invariance (e.g., Fischer, 2004; Chen, 2008; Fischer & Poortinga, 2018; Boer et al., 2018; Jeong & Lee, 2019).

Sampling: A core scientific principle is that the sample population in a given study should be representative of the population to which the conclusions will be generalized. But given the extreme cultural diversity within and between populations, what does it mean to say that one group of humans is "representative" of another? The WEIRD problem described earlier is increasingly recognized as a major sampling limitation, but simply sampling from non-WEIRD societies does not solve the problem and may in fact exacerbate it (e.g., if the groups are essentialized in misleading ways). Such overly simplistic approaches also risk failing to acknowledge the massive diversity within societies and failing to capture the full range of human cultural diversity (Barrett, 2020). There are also major, theoretically relevant differences within a given country or society, such as age, gender, race, or musicianship (Taras et al., 2009). Controlling for all these variables in cross-cultural research is often impossible, but we recommend documenting and justifying sampling and inclusion criteria to increase the generalizability and reproducibility of a given study and to prevent overinterpretation. For example, because Jacoby et al. (2021) were interested in cross-cultural diversity in rhythm perception, they recruited participants with extensive training in local non-Western musical traditions, as well as two types of control participants with similar demographics who had either training in Western musical traditions or no formal musical training. Ultimately, it is impossible to control for all demographic factors, but acknowledging such limitations is an important part of sustainability. Concepts such as "cultural distance" (Muthukrishna et al., 2020) may be useful to control for cross-cultural similarities and differences (such approaches can, in principle, simultaneously address diversity within and between societies; cf. Rzeszutek et al., 2012, for a musical example).

Incentives, Attribution, and Leadership

How can we design systems that will promote sustainable global collaborations? Many of the barriers to sustainability stem from the systemic nature of research incentive systems such as publication, funding, and hiring practices. While such global systems cannot be easily changed, a number of strategies may help researchers work effectively within them while gradually increasing their equity and sustainability.

Leadership and credit: Historical research assessment systems emphasizing first-author or sole-authored academic publications disincentivize truly interdisciplinary and global collaborations, which require a sustained investment from several individuals from multiple disciplines. It can be hard to interest researchers in collaborations if their names will end up in the middle of the author list, where evaluation committees see little value. Within the current system, effective strategies for incentivizing collaboration include negotiating financial, intellectual, and data-sharing mechanisms that allow coauthors to receive credit for aspects of the project. For example, local researchers can be given priority data access or first or shared first authorship on related papers (e.g., journal special issues, edited volumes; cf. Henrich et al., 2004; Apicella et al., 2020) based on the same data. Financial incentives can also help, such as paying consulting fees upon the completion of data collection. Ultimately, however, solving these problems will require a fundamental reevaluation of the nature of research credit attribution (cf. Kiser, 2018; Holcombe, 2019).

Multidisciplinarity: Effective global collaborations require researchers to work across disciplines within academia and to work with local communities, government funders, nongovernmental organizations, private industry, and other nonacademic stakeholders. Communicating across disciplines and across diverse stakeholders is challenging, and it can take extra time to ensure that everyone feels included and valued and believes the collaboration is in their own interest. Nevertheless, we recommend developing shared research practices that include and synthesize the diverse value systems of community stakeholders to maximize long-term sustainability (Sardo, 2017). For example, the 2018 workshop that preceded our 2021 symposium involved multiple days of long and sometimes heated discussions between ethnomusicologists and music cognition researchers (Jacoby et al., 2020). Ultimately, though, it led to greater interdisciplinary goodwill and collaborative spirit, as well as the realization that important voices were missing from the discussion, an omission the organizers of our follow-up symposium attempted to address. At that symposium, we discussed the lack of voices of musicians and performers and the need to accommodate the different goals and incentives of performers and academics. Such iterated dialogues will be necessary to facilitate sustainable long-term collaborations.

Intergenerational sustainability: Building sustainable global collaborations is a long-term goal that requires long-term strategies. By adopting the recommendations listed here, we can build infrastructures and systems to make global collaborations easier over time, as existing networks grow and stimulate additional funding and opportunities for members of underrepresented communities to become involved. To ensure such long-term intergenerational sustainability, we recommend that senior members

actively recruit and incentivize junior members from diverse backgrounds. This can include recruiting and securing funding for graduate students and postdocs from developing countries, coauthoring grant applications led by researchers at institutions in these countries, and creating incentives to encourage and reward the next generation of researchers for investing in global collaborations.

Conclusion

Box 18.1 condenses and summarizes the fourteen key recommendations provided in this chapter. These recommendations are ambitious, and we have all failed to achieve them in the past. For example, having three white researchers organize the symposium that led to this chapter and using only English violated recommendations 1.1 and 1.3. But the perfect should not be the enemy of the good. We also believe it's important to learn from past failures and to set goals that may not be attainable but should nevertheless be strived for. As stated earlier, these recommendations are not intended to be onerous, prescriptive rules; rather, they are meant to encourage progress and create excitement about future opportunities.

The 2021 symposium participants did not represent any formal consortium and did not plan any joint projects with this group as a whole. Rather, they were invited to attend and accepted that invitation based on their shared interests and experiences in cross-cultural research and their unique perspectives. In choosing invitees, the organizers attempted to balance representation across multiple dimensions, including gender, ethnicity, geography, seniority, and discipline. We were not attempting to establish an exclusive power clique but rather to invite and encourage anyone who shared similar ideas and interests to do cross-cultural research.

We recognize that our list of recommendations reflects our own priorities and experiences, which have been shaped by our backgrounds as researchers in music studies and the social sciences. These may not necessarily reflect the full range of recommendations and priorities we might have come up with had we included an even more diverse range of stakeholders (e.g., representatives from community interest groups, professional artists, corporations, government). We hope to include and learn from such perspectives and voices in the future.

We hope that by the time the next generation is organizing similar symposia, these recommendations will seem so obvious as to be hardly worth stating. We look forward to seeing future developments toward equitable and sustainable global research collaborations.

Box 18.1
Fourteen key take-home recommendations

1. **Diversity: How can we enhance representation in global collaborations?**
   - 1.1. Identify and recruit stakeholders representing diverse communities at all levels of organization and all stages of a project.
   - 1.2. Recognize contributions to research networks by means of financial (e.g., consultation fees) and intellectual (e.g., coauthorship) mechanisms. Ensure access to, and credit for, research-related outputs (e.g., audiovisual recordings).
   - 1.3. Organize events in diverse geographic locations using diverse languages, providing accessible options for translation and virtual participation.
2. **Logistics: How can we minimize logistical challenges in global collaborations?**
   - 2.1. Balance top-down (e.g., standardized protocols) and bottom-up (e.g., local adaptations) approaches to project management.
   - 2.2. Work with a diverse team to draft detailed but flexible budgets that can accommodate the expenses involved in global collaborations.
   - 2.3. Prepare standardized IRB protocols in consultation with diverse team members, and adapt these standardized protocols to local institutions as necessary.
   - 2.4. Include online options for data collection when feasible to enhance accessibility.
3. **Comparison: How can we ensure meaningful, reproducible comparisons on a global scale?**
   - 3.1. Use the IRB review process to specify data-sharing procedures and associated ethical considerations early on.
   - 3.2. Collaborate with local researchers to develop, translate, adapt, and reframe questionnaires, experimental stimuli, and protocols.
   - 3.3. Document and justify sampling and inclusion criteria.
4. **Incentives: How can we design systems that will promote sustainable global collaborations?**
   - 4.1. Negotiate financial, intellectual, and data-sharing mechanisms that allow coauthors to receive appropriate credit.
   - 4.2. Develop shared research practices that include and synthesize the value systems of diverse stakeholders.
   - 4.3. Encourage senior members to actively recruit and incentivize junior members from diverse backgrounds.
   - 4.4. Fundamentally reevaluate the nature of research credit attribution.

Author Contributions

PES, JN, and EHM conceived, planned, and organized the symposium, and PES, JN, EHM, and SF obtained funding to hold it. All the authors contributed recommendations and ideas prior to and during the symposium and took part in discussing and editing the resulting manuscript. EHM drafted the initial outline, PES wrote the first full draft, and NJ and EHM edited this draft before circulating it to the other authors. HD and MA-T assisted with symposium preparation and logistical support. Other authors are listed in alphabetical order.

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Note

1. The symposium was originally intended to be a two-day in-person gathering at the Max Planck–NYU Center for Language, Music, and Emotion in New York City on March 15–16, 2020, but had to be modified due to the COVID-19 pandemic. It was eventually held virtually on February 7, 2021.

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