慶應義塾大学学術情報リポジトリ
Keio Associated Repository of Academic resouces

Title	Computational analysis of the world's music
Sub Title	
Author	Savage, Patrick
Publisher	慶應義塾大学
Publication year	2022
Jtitle	学事振興資金研究成果実績報告書 (2021.)
JaLC DOI	
Abstract	Thanks to the support of the Keio University Academic Development Funds for Individual Research, we were able to successfully carry out our proposed research, publish 9 original research papers, and give 22 presentations at international conferences (all virtual due to COVID-19). Specifically, the fund allowed us to pay for student part-time work to undertake research and to present and publish our research findings at international journals and conferences such as Behavioral and Brain Sciences, Current Biology, the International Society for Music Information Retrieval, the International Conference on Music Perception and Cognition, and the Cultural Evolution Society World Conference. Our major findings were that there is both substantial cross-cultural variation and cross-cultural universals in music perception and production, and that social bonding is a unifying factor that shapes this cross-cultural diversity and universality. We obtained these findings using new methods from computer science and cognitive science to analyze and compare music from around the world. In the future we hope to build on these results to apply these techniques at larger scales to tackle challenges such as automatic music recommendation and understanding global variation in music perception and production. We are grateful for the financial support of the Keio University Academic Development Funds for Individual Research.
Notes	
Genre	Research Paper
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=2021000003-20210156

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

2022 年 4 月 8 日

2021 年度　学事振興資金（個人研究）研究成果実績報告書

研究代表者	所属	環境情報学部	職名	准教授	補助額	500 （特B）千円
	氏名	サベジ パトリック	氏名（英語）	Patrick SAVAGE		

研究課題（日本語）

Computational analysis of the world's music

研究課題（英訳）

Computational analysis of the world's music

１．研究成果実績の概要

Thanks to the support of the Keio University Academic Development Funds for Individual Research, we were able to successfully carry out our proposed research, publish 9 original research papers, and give 22 presentations at international conferences (all virtual due to COVID-19).

Specifically, the fund allowed us to pay for student part-time work to undertake research and to present and publish our research findings at international journals and conferences such as Behavioral and Brain Sciences, Current Biology, the International Society for Music Information Retrieval, the International Conference on Music Perception and Cognition, and the Cultural Evolution Society World Conference.

Our major findings were that there is both substantial cross-cultural variation and cross-cultural universals in music perception and production, and that social bonding is a unifying factor that shapes this cross-cultural diversity and universality. We obtained these findings using new methods from computer science and cognitive science to analyze and compare music from around the world. In the future we hope to build on these results to apply these techniques at larger scales to tackle challenges such as automatic music recommendation and understanding global variation in music perception and production. We are grateful for the financial support of the Keio University Academic Development Funds for Individual Research.

２．研究成果実績の概要（英訳）

Thanks to the support of the Keio University Academic Development Funds for Individual Research, we were able to successfully carry out our proposed research, publish 9 original research papers, and give 22 presentations at international conferences (all virtual due to COVID-19).

Specifically, the fund allowed us to pay for student part-time work to undertake research and to present and publish our research findings at international journals and conferences such as Behavioral and Brain Sciences, Current Biology, the International Society for Music Information Retrieval, the International Conference on Music Perception and Cognition, and the Cultural Evolution Society World Conference.

Our major findings were that there is both substantial cross-cultural variation and cross-cultural universals in music perception and production, and that social bonding is a unifying factor that shapes this cross-cultural diversity and universality. We obtained these findings using new methods from computer science and cognitive science to analyze and compare music from around the world. In the future we hope to build on these results to apply these techniques at larger scales to tackle challenges such as automatic music recommendation and understanding global variation in music perception and production. We are grateful for the financial support of the Keio University Academic Development Funds for Individual Research.

３．本研究課題に関する発表

発表者氏名 （著者・講演者）	発表課題名 （著書名・演題）	発表学術誌名 （著書発行所・講演学会）	学術誌発行年月 （著書発行年月・講演年月）
Savage, P. E., Passmore, S., Chiba, G., Currie, T. E., Suzuki, H., & Atkinson, Q. D.	Sequence alignment of folk song melodies reveals cross-cultural regularities of musical evolution.	Current Biology	February 2021
Savage, P. E., Loui, P., Tarr, B., Schachner, A., Glowacki, L., Mithen, S., & Fitch, W. T.	Music as a coevolved system for social bonding [one of two target articles, accompanied by 60 commentaries + author response]	Behavioral and Brain Sciences	September 2021
Matsumae, H., Ranacher, P., Savage, P. E., Blasi, D., Currie, T. E., Sato, T., Koganebuchi, K., Nishida, N., Sato, T., Tanabe, H., Tajima, A., Brown, S., Stoneking, M., Shimizu, K. K., Oota, H., Bickel, B.	Exploring correlations in genetic and cultural variation across language families in Northeast Asia	Science Advances	August 2021
Youngblood, M., Baraghith, K., & Savage, P. E.	Phylogenetic reconstruction of the cultural evolution of electronic music via dynamic community detection (1975-1999)	Evolution and Human Behavior	November 2021

Ozaki, Y., McBride, J., Benetos, E., Pfordresher, P., Six, J., Tierney, A. T., Proutskova, P., Sakai, E., Kondo, H., Fukatsu, H., Fujii, S., & Savage, P. E.	Agreement among human and automated transcriptions of global songs	Proceedings of the 22nd International Conference on Music Information Retrieval (ISMIR 2021)	November 2021