



Exploring the enjoyment of voices

A recommendation by **Chris Chambers**  based on peer reviews by **Patrick Savage**  of the STAGE 2 REPORT:

Camila Bruder, Klaus Frieler, Pauline Larrouy-Maestri (2024) Appreciation of singing and speaking voices is highly idiosyncratic. OSF, ver. 2, peer-reviewed and recommended by Peer Community in Registered Reports. <https://osf.io/rp5jx>

Submitted: 05 June 2024, Recommended: 13 September 2024

Cite this recommendation as:

Chambers, C. (2024) Exploring the enjoyment of voices. *Peer Community in Registered Reports*, 100802. [10.24072/pci.rr.100802](https://doi.org/10.24072/pci.rr.100802)

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Beyond the semantics communicated by speech, human vocalisations can convey a wealth of non-verbal information, including the speaker's identity, body size, shape, health, age, intentions, emotional state, and personality characteristics. While much has been studied about the neurocognitive basis of voice processing and perception, the richness of vocalisations leaves open fundamental questions about the aesthetics of (and across) song and speech, including which factors determine our preference (liking) for different vocal styles. In the current study, Bruder et al. (2024) examined the characteristics that determine the enjoyment of voices in different contexts and the extent to which these preferences are shared across different types of vocalisation. Sixty-two participants reported their degree of liking across a validated stimulus set of naturalistic and controlled vocal performances by female singers performing different melody excerpts as a lullaby, as a pop song and as opera aria, as well as reading the corresponding lyrics aloud as if speaking to an adult audience or to an infant. The authors then asked two main questions: first if there is a difference in the amount of shared taste (interrater agreement) across contrasting vocal styles, and second, as suggested by sexual selection accounts of voice attractiveness, whether the same performers are preferred across styles. Support for the preregistered hypotheses was mixed. Shared taste differed significantly between singing styles, but contrary to the hypothesis that it would be higher for more "natural"/ universal styles (lullabies) than for more "artificial" (operatic) forms of singing (with pop singing in an intermediary position), it was found to be higher for operatic than pop singing. At the same time, the hypothesis of low consistency in preferences for singers across styles was confirmed, contradicting the notion that singing and speaking voices convey the same information about an individual's physical fitness. Overall, the results suggest that enjoyment of singing and speaking is idiosyncratic and prone to substantial individual differences. The authors conclude that a broader approach is needed to studying this question that traverses geographic, linguistic, and cultural contexts. The Stage 2 manuscript was evaluated over one round of in-depth review. Based on detailed responses to the reviewer's comments, the recommender judged that the manuscript met the Stage 2 criteria and awarded a

positive recommendation. **URL to the preregistered Stage 1 protocol:** <https://osf.io/7dvme> **Level of bias control achieved:** Level 6. *No part of the data or evidence that was used to answer the research question was generated until after IPA.* **List of eligible PCI RR-friendly journals:**

- [Advances in Cognitive Psychology](#)
- [Collabra: Psychology](#)
- [Journal of Cognition](#)
- [Peer Community Journal](#)
- [PeerJ](#)
- [Psychology of Consciousness: Theory, Research, and Practice](#)
- [Royal Society Open Science](#)
- [Studia Psychologica](#)
- [Swiss Psychology Open](#)

References:

1. Bruder, C., Frieler, K. and Larrouy-Maestri, P. (2024). Appreciation of singing and speaking voices is highly idiosyncratic [Stage 2]. Acceptance of Version 2 by Peer Community in Registered Reports. https://osf.io/rp5jx?view_only=506d243a6e7a4d3680c81e696ca81025

Reviews

Evaluation round #1

DOI or URL of the preprint: https://osf.io/hfte9?view_only=506d243a6e7a4d3680c81e696ca81025
Version of the preprint: 1 (inside folder Stage2_submission)

Authors' reply, 15 August 2024

- [Download author's reply](#)
- [Download tracked changes file](#)

Decision by [Chris Chambers](#) , posted 15 July 2024, validated 15 July 2024

Minor Revision

One of the reviewers from Stage 1 kindly returned to reevaluate your completed Stage 2 manuscript, and I have decided that we continue with an interim decision on the basis of this review and my own reading of the manuscript. As you will see, the review is generally very positive and reflects my own judgment that this is a strong example of a completed Stage 2 RR. You will note in the reviewer's comments some points to address concerning deviations from the Stage 1 submission as well as minor issues of clarity and transparency. I agree with all of these points and provided you are able to resolve them comprehensively in a revision, I don't anticipate needing to seek additional in-depth review before issuing a final Stage 2 recommendation. As you

will be aware, we are now in July-August shutdown period. During this time, authors are generally unable to submit new or revised submissions. However, given the relatively straightforward revisions required in your case, I am going to give you the opportunity to resubmit despite the shutdown. You won't be able to do this the usual way. Instead, please email us (at contact@rr.peercommunityin.org) with the following:

- A response to the reviewer (attached to the email as a PDF or Word document)
- A tracked-changes version of the revised manuscript (attached to the email as a PDF or Word document)
- The URL to a completely clean version of the revised Stage 2 manuscript on the OSF

In the subject line of the email please state the submission number (#802) and title. We will then submit the revision on your behalf.

Reviewed by **Patrick Savage** , 12 June 2024

I think the manuscript mostly meets the key criteria for Stage 2 acceptance: the authors appears to have conducted the study as described and interpreted the results sensibly according to their pre-specified Stage 1 criteria, with appropriate caveats in the Discussion and appropriate weighting in the abstract.

The only minor question I have about following protocol is why the final participant total was 62 instead of the 60 participants proposed. Was this because of collecting more than 60 in case of exclusions? I'd just suggest adding a sentence somewhere to make this explicit.

I do think, however, that there are a few structural changes required to confirm with PCI-RR policies:

I note that the authors appear to have altered the introduction from the version that received IPA to add recently published references (e.g., Ostrega et al., 2024). This contradicts PCI-RR policy (https://rr.peercommunityin.org/PCIRegisteredReports/about/full_policies):

"Aside from changes in tense (e.g. future tense to past tense), correction of typographic and grammatical errors, and correction of clear factual errors, the introduction, rationale and hypotheses of the Stage 2 submission must remain identical to those in the approved Stage 1 manuscript. To make any changes clear, authors are required to submit a tracked changes version of the manuscript at Stage 2."

It is commendable to incorporate recent studies, but I'd suggest that the revised version cites new references not cited in the Stage 1 protocol in the Discussion section instead. (I think it is OK to update references for preprints already cited at Stage 1 to their recently published final versions - e.g., Albouy et al., 2024; Ozaki et al., 2024).

I note the authors have also included exploratory analyses in the results section before the official "Exploratory analysis" section ("Liking ratings differed for each of the styles in pairwise comparisons with all other styles (all p s < .001; based on average ratings of sessions 1 and 2 and adjusting p-values for multiple comparisons with the Holm method. Note that these comparisons were not preregistered; they were included for completeness, since it seemed reasonable to first present the distribution of our dependent variable)." These (and any other analyses not part of the Stage 1 confirmatory analyses) should be moved to the "Exploratory analyses" section.

Finally, the manuscript refers to some supplementary figures but these are not visible in the manuscript. I suggest the supplementary figures be merged with the main manuscript (after the reference section).

Other points:

In general I recommend changing the title at Stage 2 submission to something that is more informative about the actual results

I recommend including more details about the sample in the abstract (e.g., 62 experiment participants, lyrics in Brazilian Portuguese) [sorry I didn't catch this in Stage 1!]. I recommend this editorial for thinking about how to make abstracts and titles more informative: <https://www.nature.com/articles/s41562-023-01596-8>

Fig. 1: I recommend visualizing individual datapoints in addition to averages/distributions (<https://www.nature.com/articles/s41551-017-0079>)

Line 549: " $r(20) = .37(0.087)$; and $r(20) = .37$ ($p = .089$)": is it missing a " $p =$ " before "0.087"? Personally I'm not sure it is helpful to even report p-values at all for exploratory analyses, but if you do want to report them you should fix that typo.

Line 571: "mirrored" typo

I'd remove "highly" from the abstract - feels a bit strong

Line 588: I agree that Cronbach's alpha is "an inadequate measure of interrater agreement", but you might want to support this with a reference

Line 672: "(and actually equivalent to lullaby singing)" - remove parentheses and "actually"

Line 675: "definetively" typo

Line 721: "the prediction of some consistency of average preferences for some voices across styles was supported by the found interstyle agreement of .52, which, according to the specified threshold of .8, is not considered highly consistent" - this wording is confusing - perhaps instead of "some consistency", "limited consistency" (as in the abstract) would be better? Grammar of "found interstyle..." also feels a bit awkward.