To the editors of   
*iScience*

Manuscript submission

Dear Editors of *iScience*,

attached please find a new manuscript entitled “Vocal Emotion Perception: A Comparison of Singers and Instrumentalists, Amateurs and Professionals” for possible publication as a research article in *iScience*.This work covers an interdisciplinary topic in social and health science and therefore fits the scope of this journal. Our findings close an important gap concerning the role of musicality for vocal emotional processing and will be of relevance for emotion researchers, experts on voice and speech studies, as well as psychologists and musicians in applied fields.

Musicians outperform non-musicians in vocal emotion recognition. However, the current literature is inconclusive regarding differential effects of specific types of musical activity. To address this gap, we compared emotion recognition performance of singers (N= 45) vs. instrumentalists (N=43) and professional musicians (N = 40) vs. amateurs (N = 88) vs. non-musicians (N = 38). Importantly, we predicted that vocal emotion recognition would be unaffected by the type or amount of musical activity. Using both frequentist and Bayesian inference, we found the predicted null effects for singers vs. instrumentalists, and for professionals vs. amateurs. Across groups, we replicated the link between vocal emotion perception and auditory sensitivity, suggesting that musicians’ advantage in recognizing vocal emotions is rooted in auditory sensitivity, rather than in the specific type or amount of musical activities.

We want to highlight two important aspects of this work: First, we specifically predicted and preregistered a null-effect of musical activity. Therefore, we used Bayesian inference alongside established frequentist approaches in our statistical analyses. Second, we recruited an original sample of 45 singers and 43 instrumentalists, which were all amateur musicians. To compare them to professionals and non-musicians, we used a previously recruited sample (Nussbaum et al. 2024, 10.1111/bjop.12684). This is made transparent throughout in the manuscript.

To the best of our knowledge, this is the first well-powered and preregistered study on vocal emotion capacities of different musical subgroups. It has not been published previously, is not under consideration for publication elsewhere, and is approved by all authors. The preregistration, preprocessed data, analysis scripts, and supplemental materials are available at OSF (https://osf.io/ascqx/). We expect this manuscript to be of great interest to the wide readership of *iScience.*

Yours sincerely,   
Christine Nussbaum, Jessica Dethloff, Annett Schirmer and Stefan R. Schweinberger

Appropriate reviewers:

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*César F. Lima is the leading researcher on the link between musicality and vocal emotion perception. Within the last decade, his group has published the key work on vocal emotion perception in musicians and non-musicians.*

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*Patricia E.G. Bestelmeyer is a leading researcher in the psychological and neuronal processes related to voice perception. She has also worked with voice manipulation techniques, such as emotional caricaturing.*

Phil McAleer  
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*Phil McAleer has his main interest on the expression of personality in voices. His profound experiences in linking acoustic parameters to perception make him a valuable reviewer for our manuscript.*

Petri Laukka  
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*Petri Laukka is an expert on the vocal expression of emotion. He has published extensive works linking vocal and musical emotions to their underlying acoustic codes.*

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*Marianne Latinus is a leading researcher in the field of voice perception. Her primary fields of research include cognitive processes and perception of sensory social information - voices in particular - in Autism Spectrum Disorder (ASD).*

Non-preferred reviewers:

We do not have specific non-preferred reviewers, but note that the following individuals should be excluded for reasons of conflict of interest/collaboration:

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