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Corrigendum: EEG-based spectral analysis showing brainwave changes related to modulating progressive fatigue during a prolonged intermittent motor task

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EEG, fatigue, maximum voluntary contraction, motor cortex, power spectral density, submaximal muscle contraction, time-frequency analysis, elbow flexion

A corrigendum on

EEG-Based Spectral Analysis Showing Brainwave Changes Related to Modulating Progressive Fatigue During a Prolonged Intermittent Motor Task

by Suviseshamuthu, E. S., Shenoy Handiru, V., Allexandre, D., Hoxha, A., Saleh, S., and Yue, G. H. (2022). *Front. Hum. Neurosci.* 16:770053. doi: 10.3389/fnhum.2022.770053

In the published article, there was an error. **Equation (2) is incorrect.**

A correction has been made to **Data Analysis, Statistical Framework, Paragraph Two**. This sentence previously stated: Therefore, the ERSP analyses and the results reported here are based on the log-transformed ERSP in Equation (2) and its time-averaged quantity in Equation (3), both expressed in decibels (dBs):

$$\text{ERSP}(f, t) = 10 \log_{10}[\text{ERS}(f, t) - B_{\text{AVG}}(f)] \quad (2)$$

$$\tilde{\text{ERSP}}(f) = \frac{1}{r} \sum_{t \in R} \text{ERSP}(f, t) \quad (3)$$

where

$$B_{\text{AVG}}(f) = \frac{1}{pq} \sum_{k=1}^p \sum_{t \in Q} |S_k(f, \bar{t})|^2 \quad (4)$$

and r denotes the cardinality of the set R of steady- or post-contraction time points.

The corrected sentence appears below: Therefore, the ERSP analyses and the results reported here are based on the log-transformed ERSP in Equation (2) and its time-averaged quantity in Equation (3), both expressed in decibels (dBs):

$$\text{ERSP}(f, t) = 10 \log_{10}[\text{ERS}(f, t) \oslash \text{B}_{\text{AVG}}(f)] \quad (2)$$

$$\widetilde{\text{ERSP}}(f) = \frac{1}{r} \sum_{\bar{t} \in R} \text{ERSP}(f, \bar{t}) \quad (3)$$

where

$$\text{B}_{\text{AVG}}(f) = \frac{1}{pq} \sum_{k=1}^p \sum_{\bar{t} \in Q} |S_k(f, \bar{t})|^2 \quad (4)$$

\oslash denotes Hadamard division, and r is the cardinality of the set R of steady- or post-contraction time points.

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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