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Musical enjoyment for cochlear implant (CI) recipients is often reported to be unsatisfactory. Our goal was to determine whether the musical experience of postlingually deafened adult CI recipients could be enriched by presenting the bass and treble clef parts of short polyphonic piano pieces separately to each ear (dichotic). Dichotic presentation should artificially enhance the lateralization cues of each part and help the listeners to better segregate them and thus provide greater clarity. We also hypothesized that perception of the intended emotion of the pieces and their overall enjoyment would be enhanced in the dichotic mode compared with the monophonic (both parts in the same ear) and the diotic mode (both parts in both ears). Twenty-eight piano pieces specifically composed to induce sad or happy emotions were selected. The tempo of the pieces, which ranged from lento to presto covaried with the intended emotion (from sad to happy). Thirty participants (11 normal-hearing listeners, 11 bimodal CI and hearing-aid users, and 8 bilaterally implanted CI users) participated in this study. Participants were asked to rate the perceived clarity, the intended emotion, and their preference of each piece in different listening modes. Results indicated that dichotic presentation produced small significant improvements in subjective ratings based on perceived clarity. We also found that preference and clarity ratings were significantly higher for pieces with fast tempi compared with slow tempi. However, no significant differences between diotic and dichotic presentation were found for the participants' preference ratings, or their judgments of intended emotion.

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