* Because pitch discrimination ability has been suggested to depend on frequency (Gfeller et al. 2002b; Vandali et al. 2005; Laneau et al. 2006), three base frequencies in the octave above middle C or C4 were tested: C4 at 262 Hz, E4 at 330 Hz, and G4 at 392 Hz.
* The pitch direction discrimination subtest used a two-alternative forced choice, 1-up 1-down adaptive testing method (Levitt 1971).
* A base frequency and a higher pitch were played in random order.
* Two buttons were presented on a computer screen, and the user was instructed to select the button corresponding to the note (first or second note heard) perceived as higher in pitch.
* Each correct response yielded a smaller subsequent pitch interval, and each incorrect response yielded a larger interval.
* A reversal was defined as an incorrect response after a correct response or vice versa.
* To create an accurate psychometric function, a reversal at zero was automatically added by the test algorithm when the user answered correctly at a 1 semitone interval.
* The initial interval presented was 12 semitones, or 1 octave, and the smallest interval tested was 1 semitone.
* Discrimination thresholds were based on performance on each base frequency independently, but all were tested concurrently, so that presented pitch pairs randomly used any of the three base frequencies.
* The subject’s pitch discrimination threshold at each base frequency was calculated by the mean pitch interval in semitones using the last 6 of 8 total reversals.
* After three trials at each base frequency were completed, a mean threshold was calculated for each base frequency. The final pitch direction discrimination score was calculated as the mean of all three base frequency thresholds.