Supplemental Materials

(Larrea-Mancera et al. 2022)

1. Experiment 1 analysis including outliers

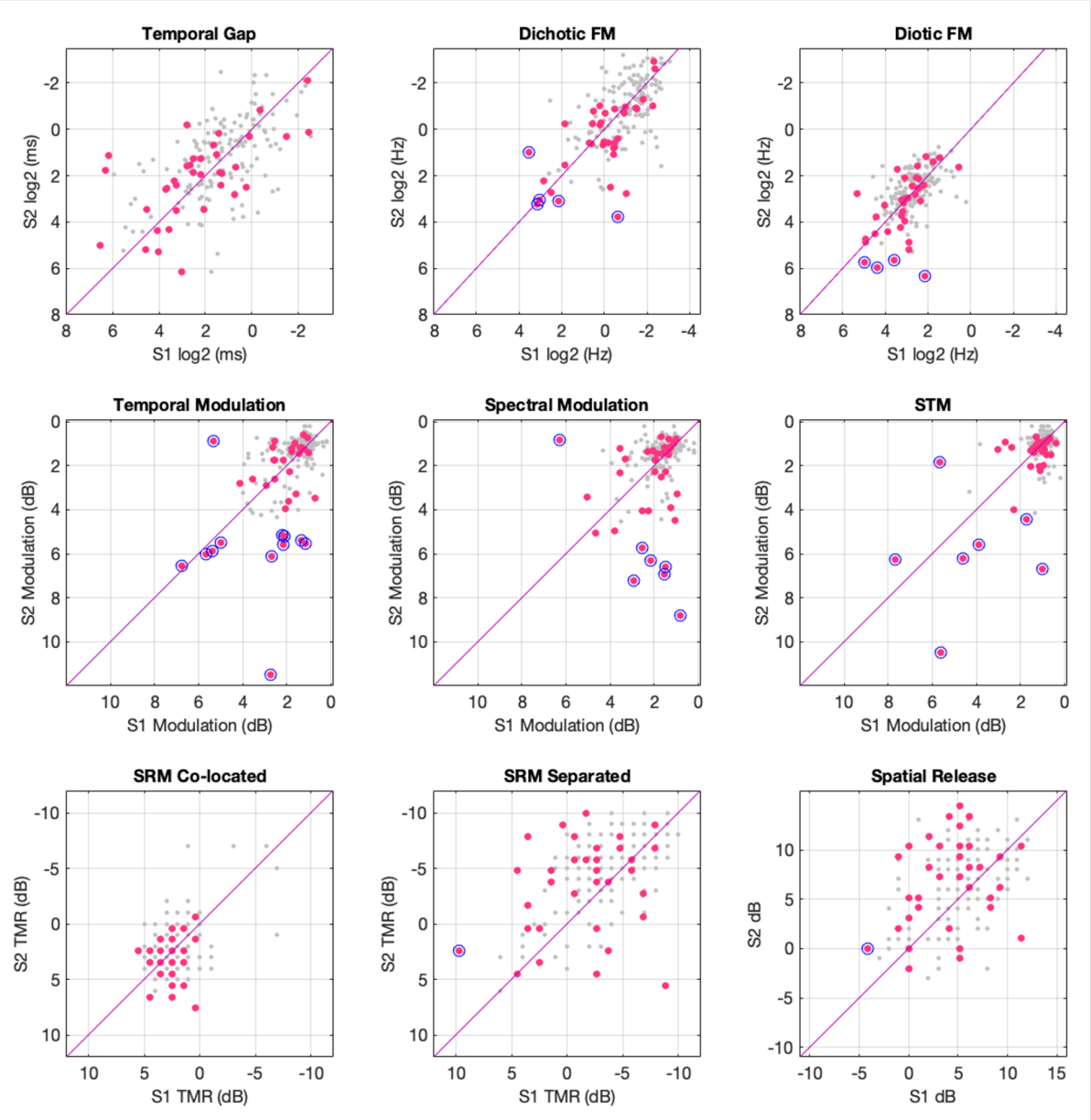

Figure S1. Scatter plots with the scores of session 1 vs session 2 for all assessments. Axes are oriented so that better performance is located at the top left corner. The normative dataset of Larrea-Mancera et al. (2020) is depicted as the small grey dots and Experiment 1 of this Study as the bigger pink dots. Outlier data are circled in blue.

2. Experiment 2 analysis including outliers

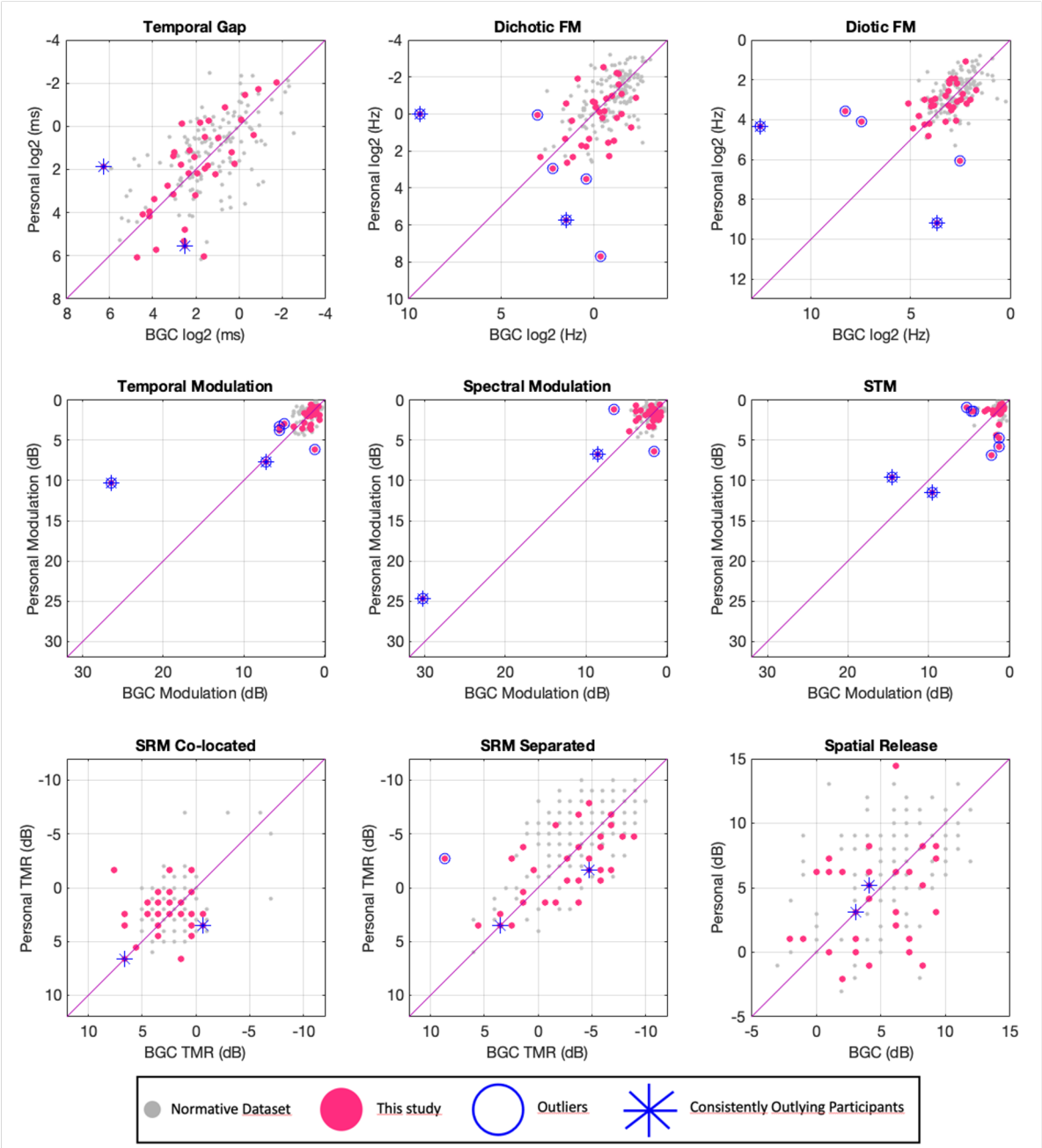

Figure S2. Experiment 2 scores obtained on each test on each session where either a calibrated system (BGC) or uncalibrated participant owned (Personal) systems were used. Outlier performance is marked with a circle and participants with consistently outlying performance are identified with an asterisk. The grey data in the background represent the normative dataset (Larrea-Mancera et al., 2020). Axes are oriented so that better performance is located at the top left corner.

3. Experiment 3 analysis including outliers

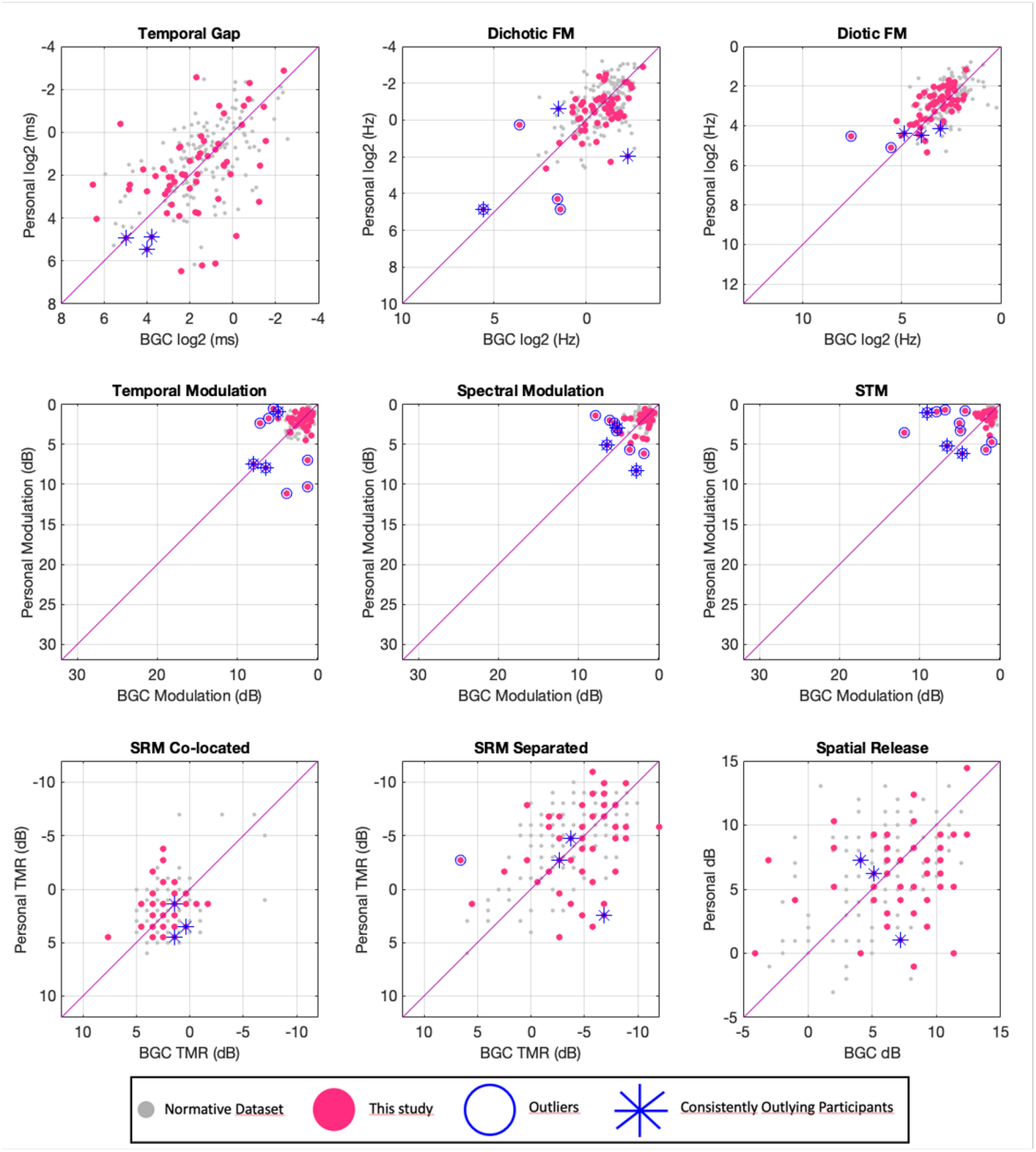

Figure S3. Experiment 3 scores obtained on each test on each session where either a calibrated system (BGC) or uncalibrated participant owned (Personal) systems were used. Outlier performance is marked with a circle and participants with consistently outlying performance are identified with an asterisk. The grey data in the background represent the normative dataset (Larrea-Mancera et al., 2020). Axes are oriented so that better performance is located at the top left corner.

4. Audibility

Audibility measures were collected in this study with the purpose of ensuring the other assessments were able to be done on that account. Figures S4 shows the audibility data for Experiment 1. Additionally, and for exploratory purposes only the correlations of the audibility scores to the standardized composite score of all performance measures of Experiment 1 is shown in figure S5. Of note, the r values displayed on the figure are not corrected for multiple comparisons and the one correlation that is significant (2 kHz in session 2) would not survive correction (p = .18). In any case the figure does suggest a pure tone test might correlate well with central auditory processing measures.

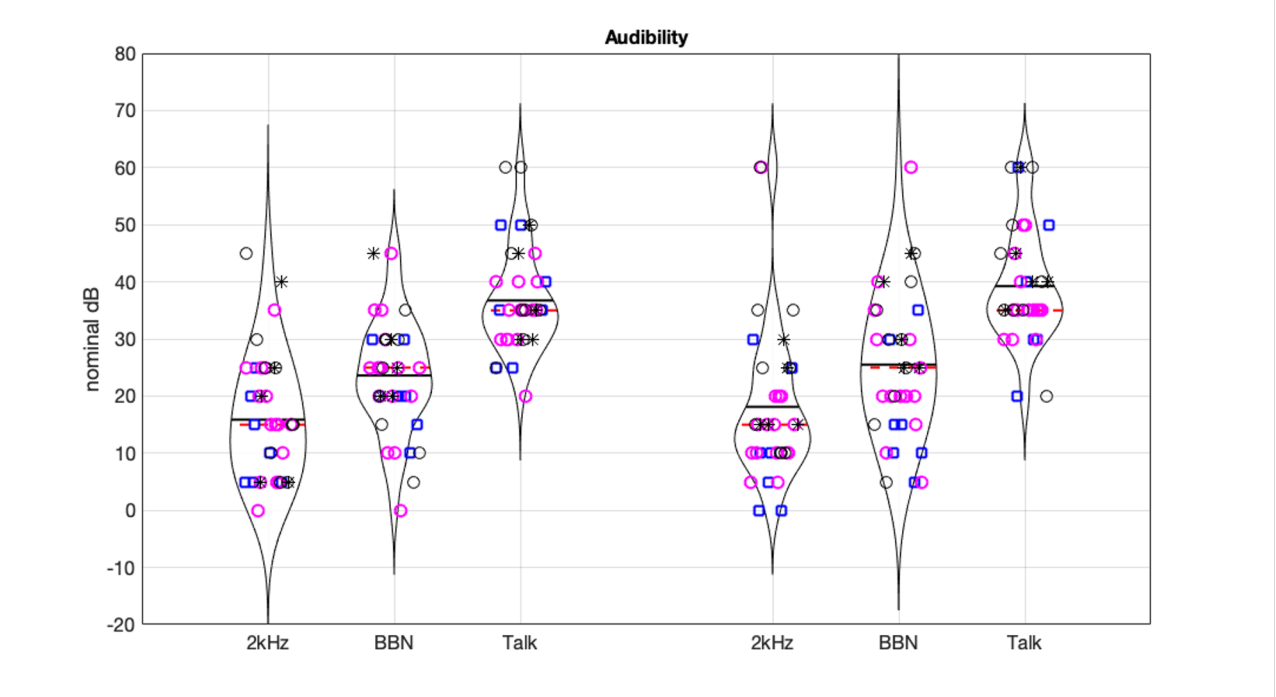

Figure S4. Violin plots showing the probability density function around the scatter of data for the three audibility assessments used in two sessions. Markers indicate different headphones used: blue squares represent Apple wired headphones, pink circles Apple wireless headphones, black circles are other types of headphones, and black stars other types of headphones on Android devices. All other devies were iOS.

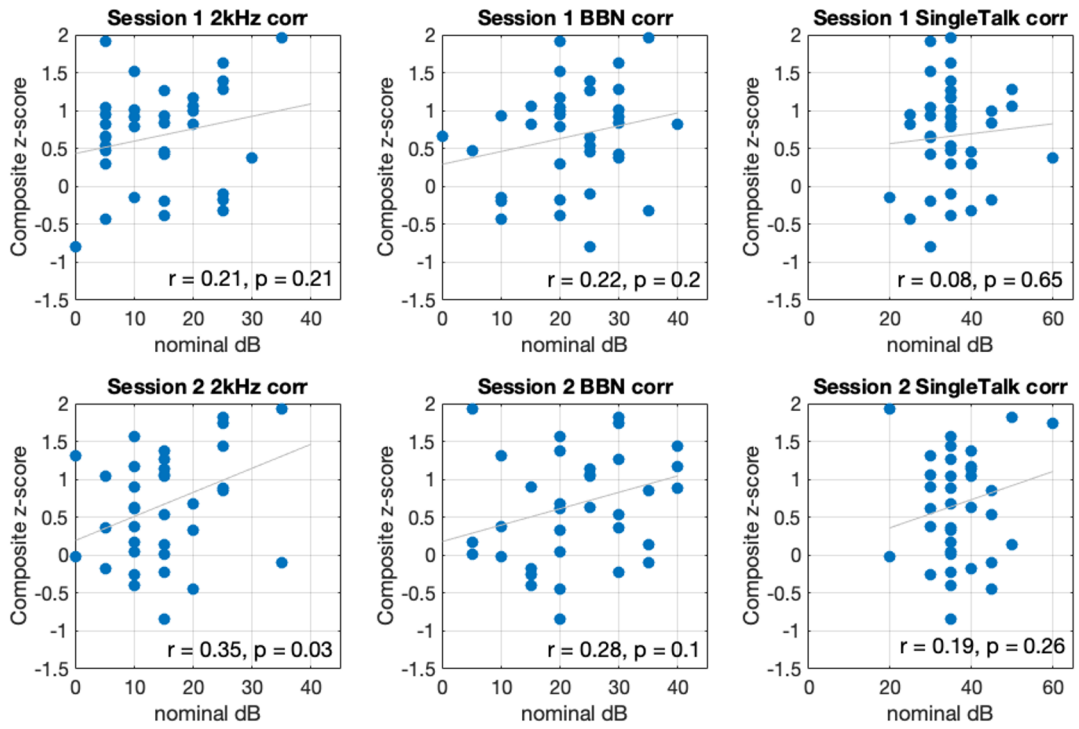

Figure S5. Scatter plots and correlations for each of the audibility tests and the standardized composite scores of each session in Experiment 1. P-values are not corrected for multiple comparisons plots showing the probability density function around the scatter of data for the three audibility assessments used in two sessions. Markers indicate different headphones used: blue squares represent Apple wired headphones,

4.1 Audibility Experiments 2 and 3

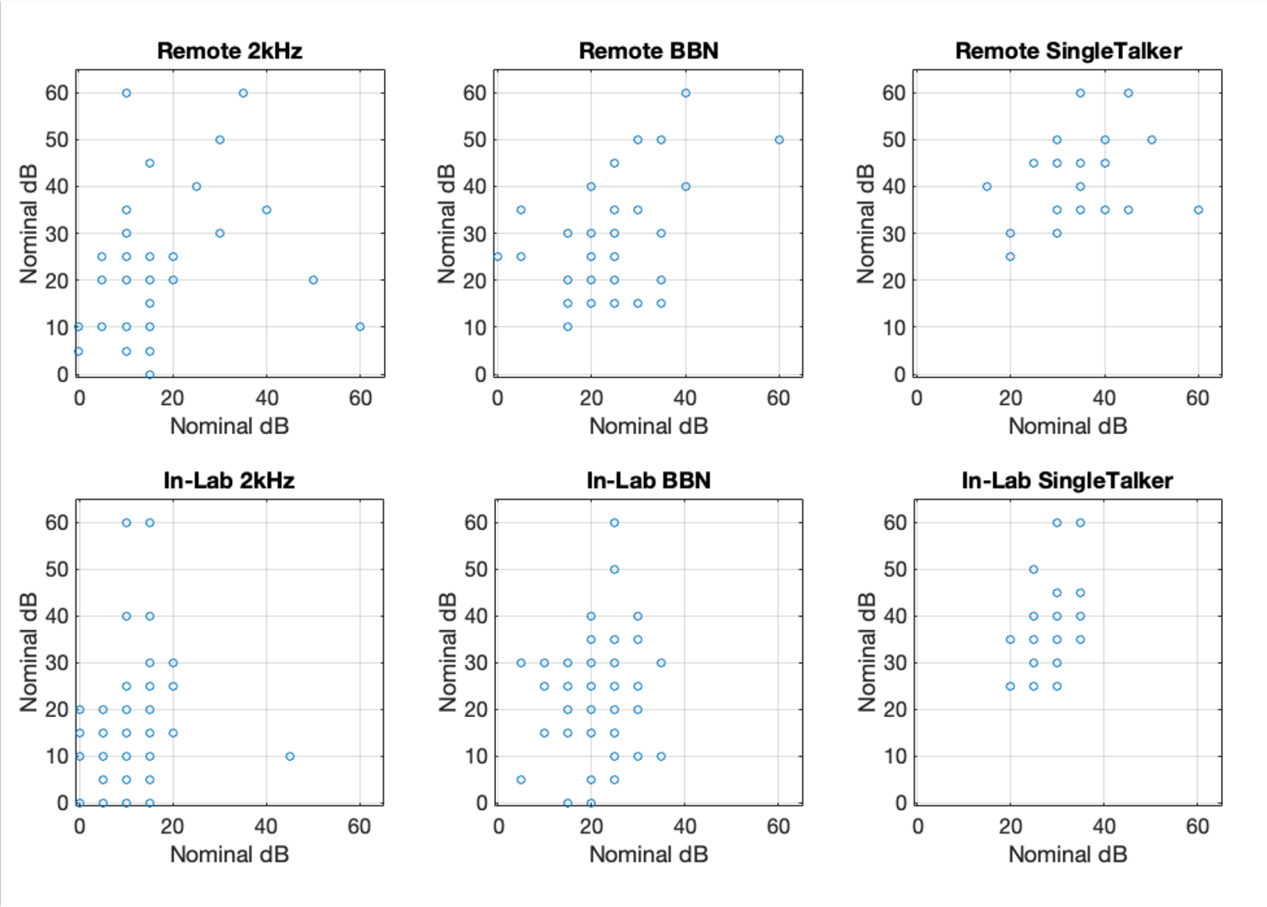

Figure S6. Scatterplots in top panels (Remote) represent data from both sessions from Experiment 2. Bottom panels (In-Lab) show both sessions of Experiment 3.

5. Self-reported distraction and focus correlations to performance

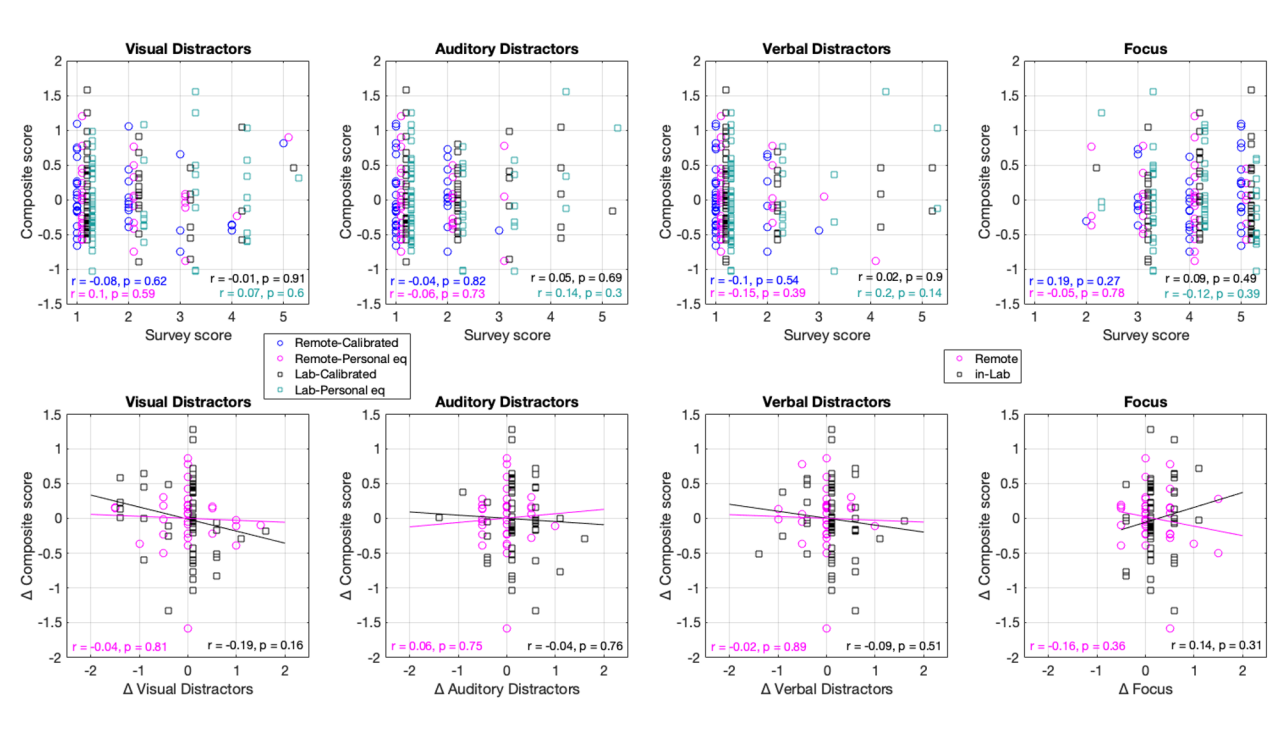

Figure S7. Scatterplots in top panels report the relationship between composite performance and the self-reported distractor and focus scores. Different markers indicate a different combination of Equipment and Location. Bottom panels show the relationship between a change in distractor and focus scores and a change in composite performance between sessions. Statistics at the bottom of each scatter correspond to the data displayed on the figure depending on color (and order).

6. Differences against normative dataset

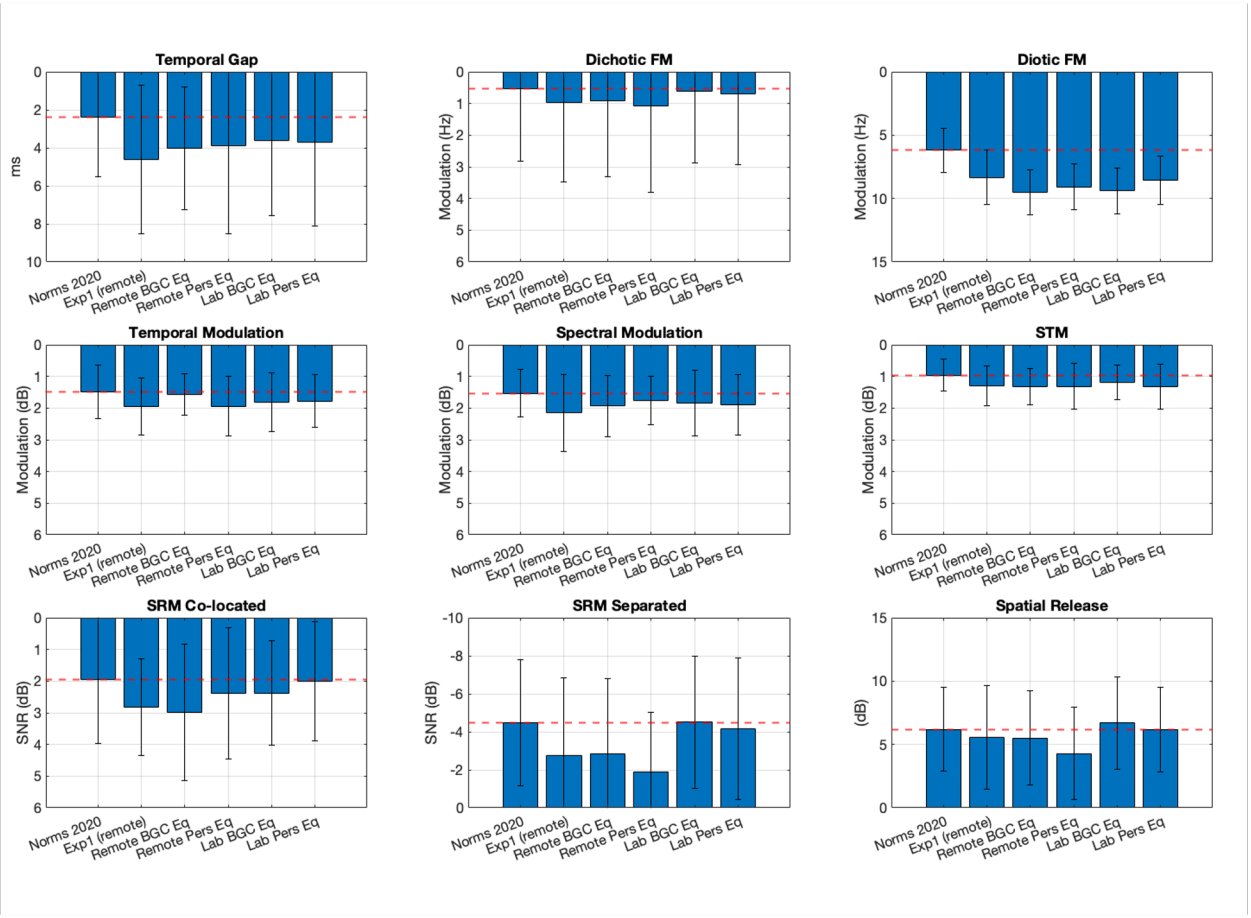

Figure S8. Means and standard deviations of all datasets reported in this study including the normative dataset of Larrea-Mancera et al. (2020). A dotted line is centered at the normative dataset mean to ease comparisons across datasets.