

1.	Alice's	Adventures	in	Wonderland,	by ...
2.	'æləsəz	æd'vɛntʃərz	ɪn	'wʌndər,lænd,	bɑɪ ...
3.	'æ ə səz	æd vɛ ntʃ ərz	ɪn	'wʌ nd ər ,lænd ,	bɑɪ ...

Approximants: l, r, w

Fricatives: s, v, z

Nasals: n, m

Plosives: d, tʃ, b

Vowels: æ, ə, ɛ, ɪ, ʌ, a

Figure S1: **Example of phoneme encoding of the stimulus.** Line 1 contains the text in English. Vertical lines separate words. Line 2 contains the text as phonemes using the International Phonetics Alphabet. Line 3 groups these phonemes into classes according to manner of articulation, as indicated by colors. The key shows the phonemes belonging to each class.

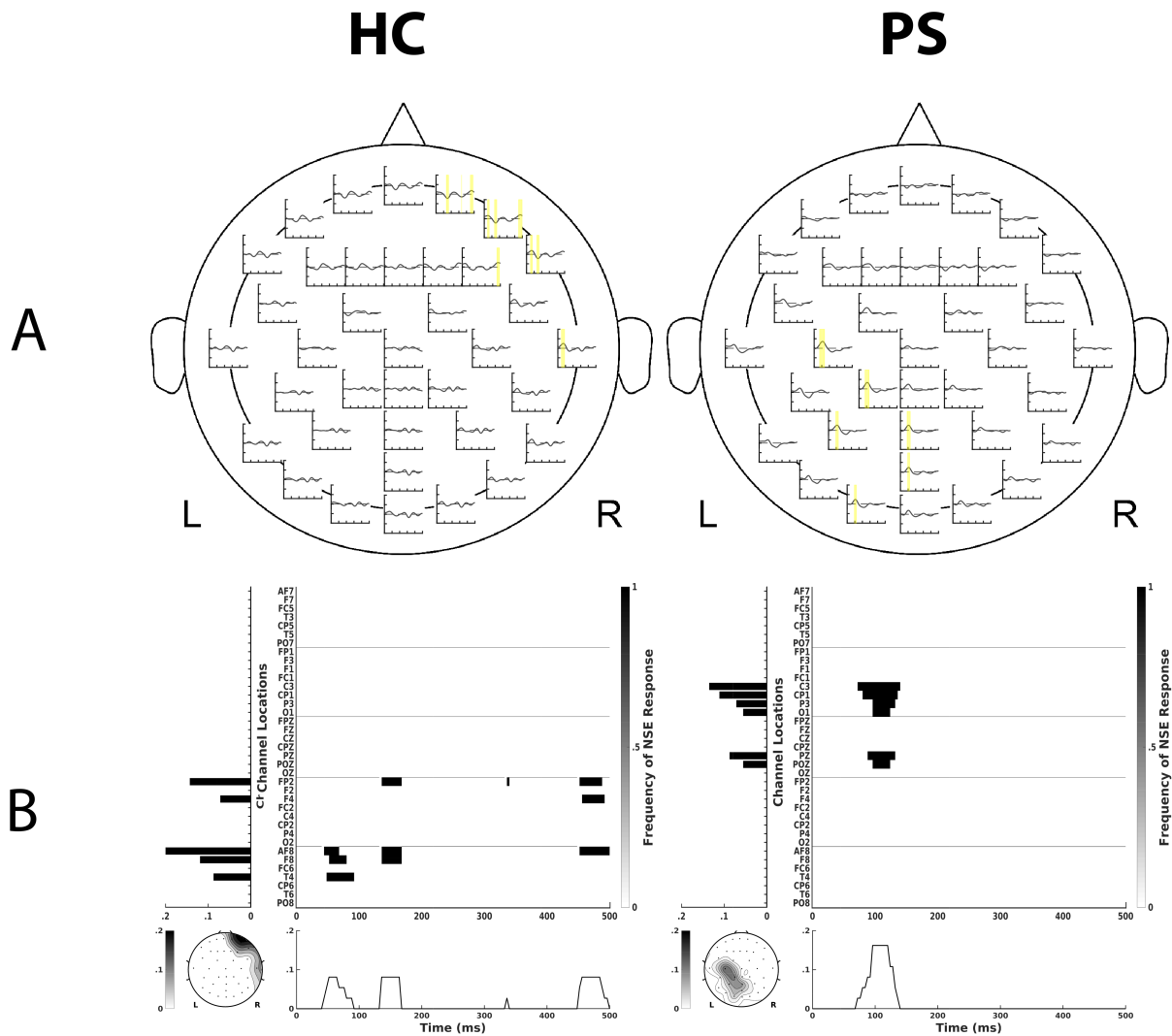


Figure S2: **Natural speech envelope (NSE) analysis pipeline.** The left column shows the results for a healthy control (HC01) and the right column shows a patient subject (PS11). Row A shows the cross-correlation of the EEG with the speech envelope, for each EEG channel, as determined from a single repeat. Timepoints where the cross-correlation was statistically significant following FDR correction within each tracing ($p < 0.05$) are shown in yellow. Row B shows the data in the row A in a fingerprint format, similar to Figure 1 of the main text. In row B, the frequency of response due to chance is ~ 0.0004 .

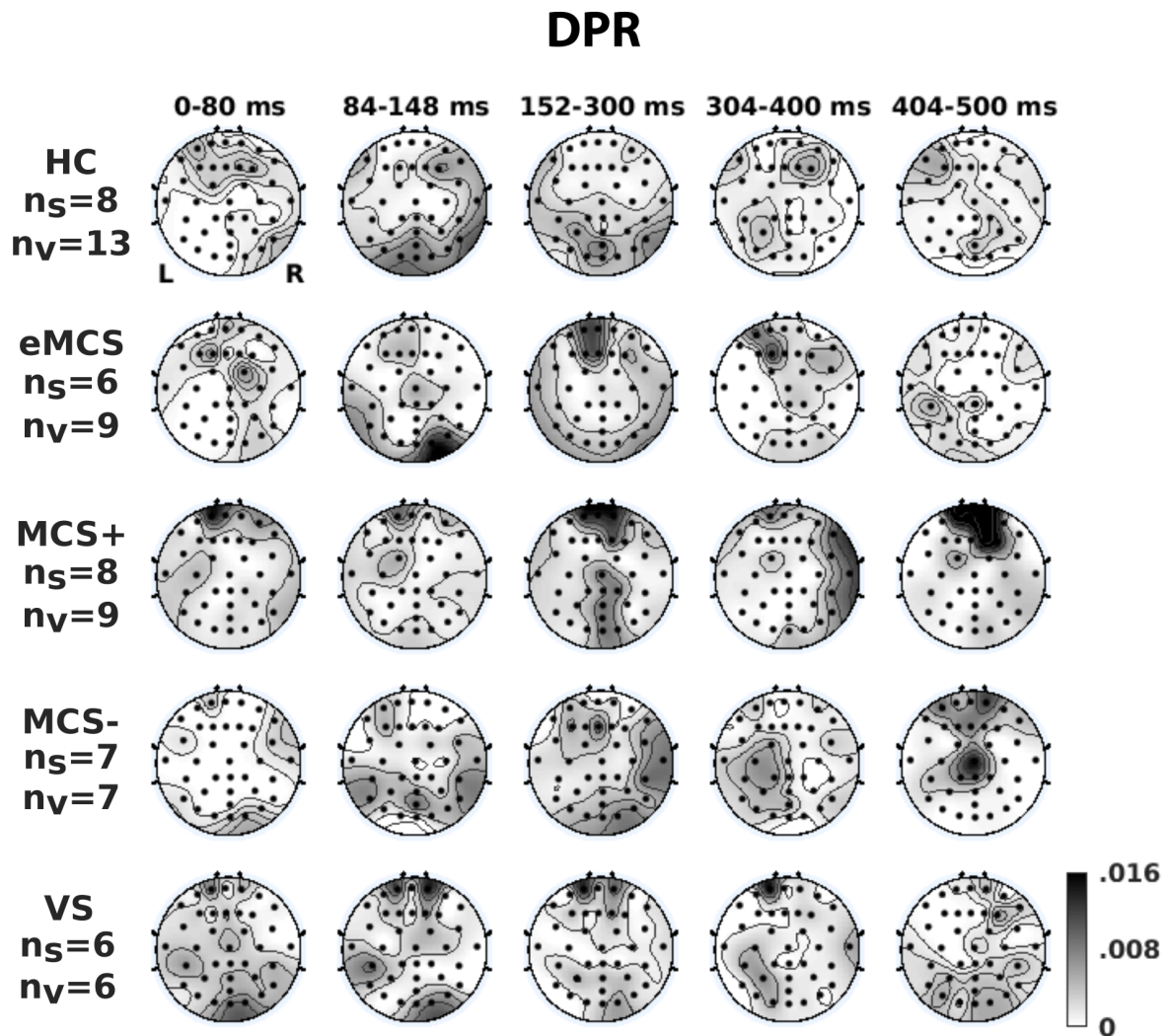


Figure S3: **Spatial distribution of DPR responses, across the analysis interval, categorizing patients based on behavioral assessment alone.** The sub-intervals (columns) are the same as in Figure 6A of the main text. The frequency of response due to chance is ~ 0.0004 .

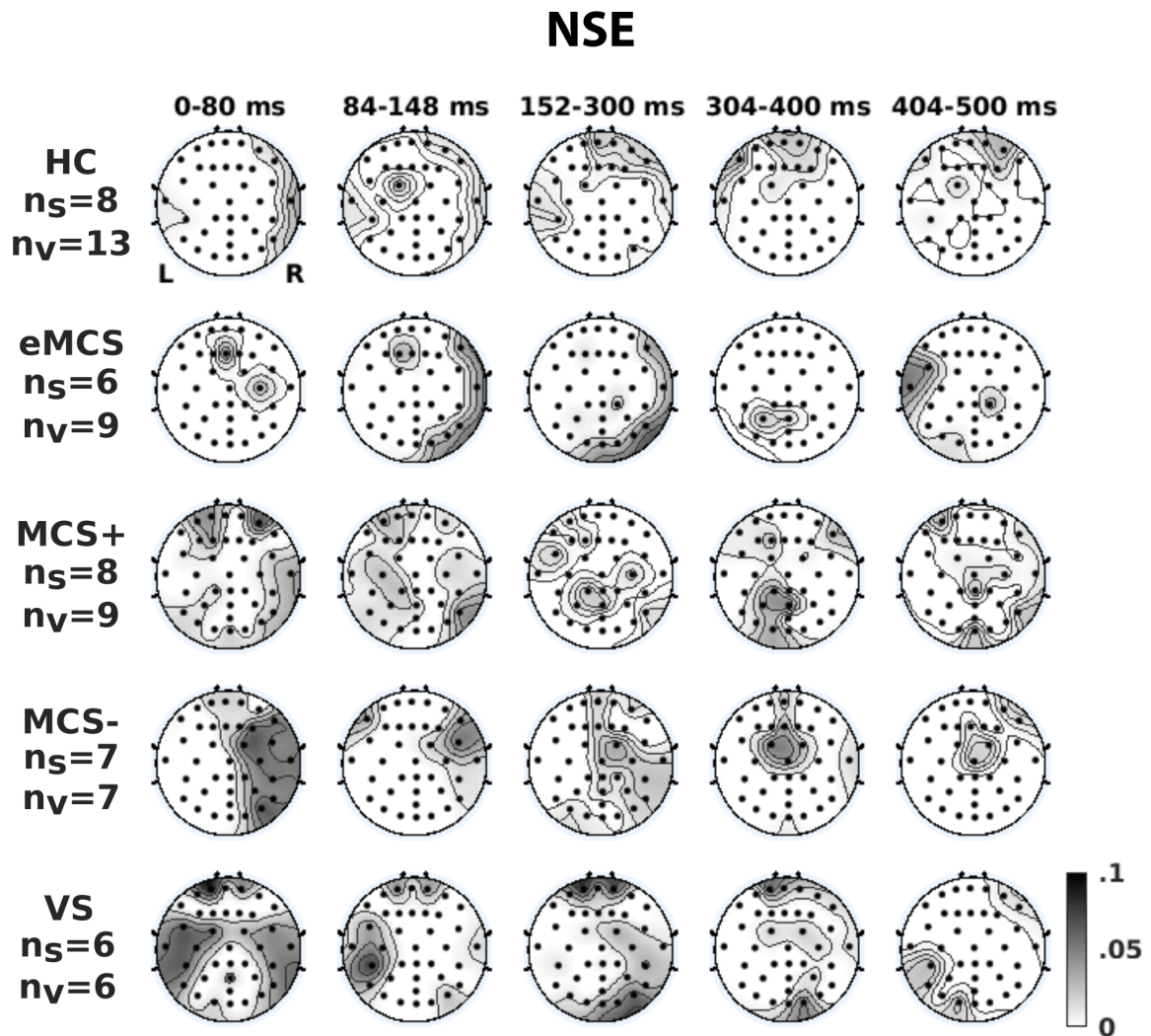


Figure S4: **Spatial distribution of NSE responses, across the analysis interval, categorizing patients based on behavioral assessment alone.** The sub-intervals (columns) are the same as in Figure 6B of the main text. The frequency of response due to chance is ~ 0.0004 .

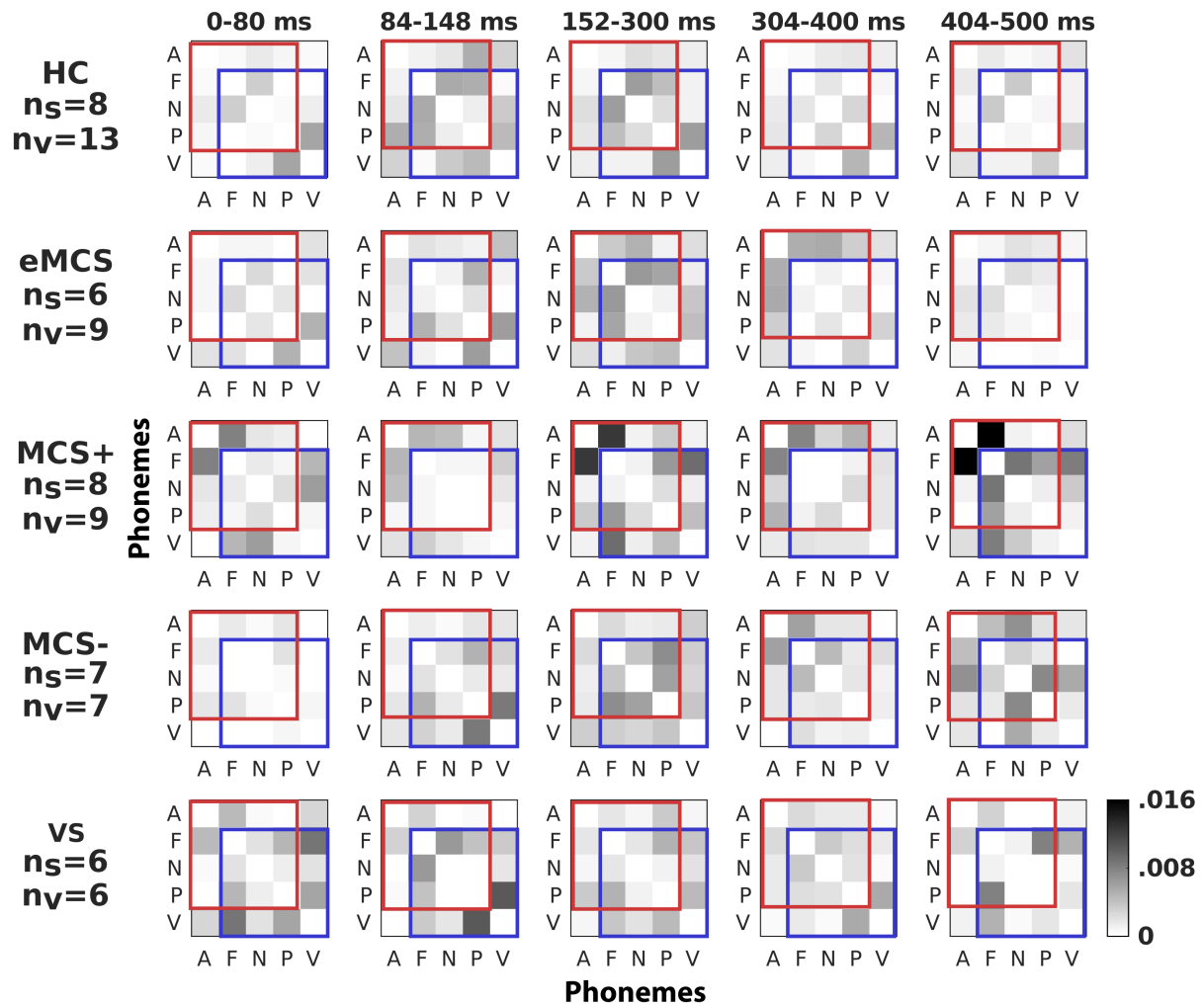


Figure S5: **Differentiation of individual phoneme pairs, across the analysis interval, categorizing patients based on behavioral assessment alone.** Phoneme classes are approximants (A), fricatives (F), nasals (N), plosives (P) and vowels (V). Responses to each phoneme-class pair were averaged across scalp locations and trials, within each sub-interval; gray levels indicate frequency of DPRs. The sub-intervals (columns) are same as in Figure 7 of the main text. The blue and red boxes correspond to phoneme-class subgroups from Figures 4A and 7 of the main text. The frequency of response due to chance is ~ 0.0004 .