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Supplemental material

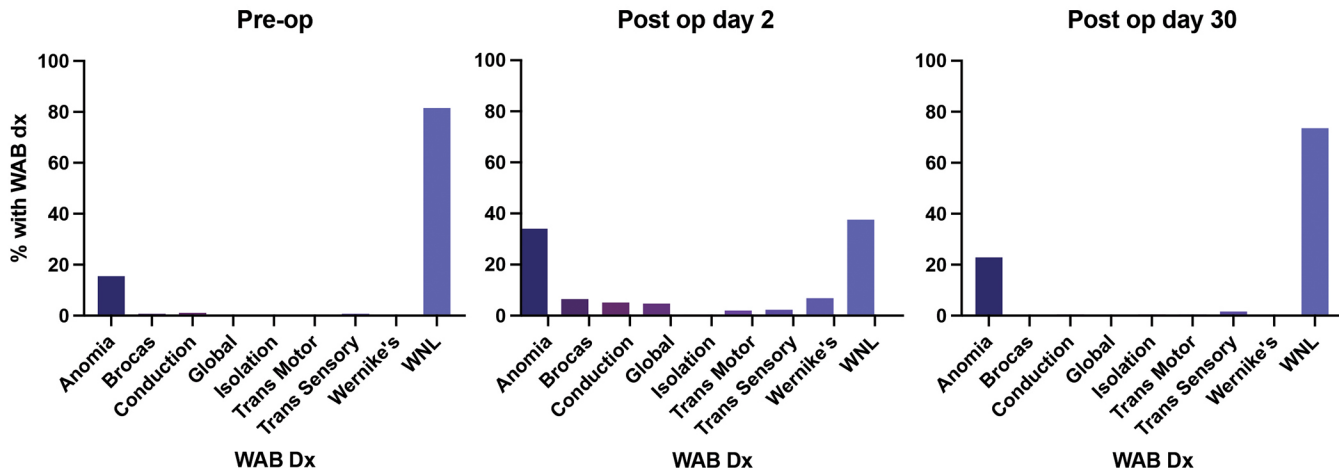
Dissociation of Broca's area from Broca's aphasia in patients undergoing neurosurgical resections

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WAB diagnosis distribution for full cohort



Supplemental Figure S1: WAB diagnosis distribution for full cohort

The fraction of patients with WAB classification of each of the 8 WAB aphasias (plus normal speech = WNL) are shown for evaluations at 3 time-points from left to right. Left: at pre-operative evaluation (Pre-op). Middle: postoperative day 2 (Post op day 2. Right Post operative day 30 (Post op day 30). The percent with each diagnosis is as follows:

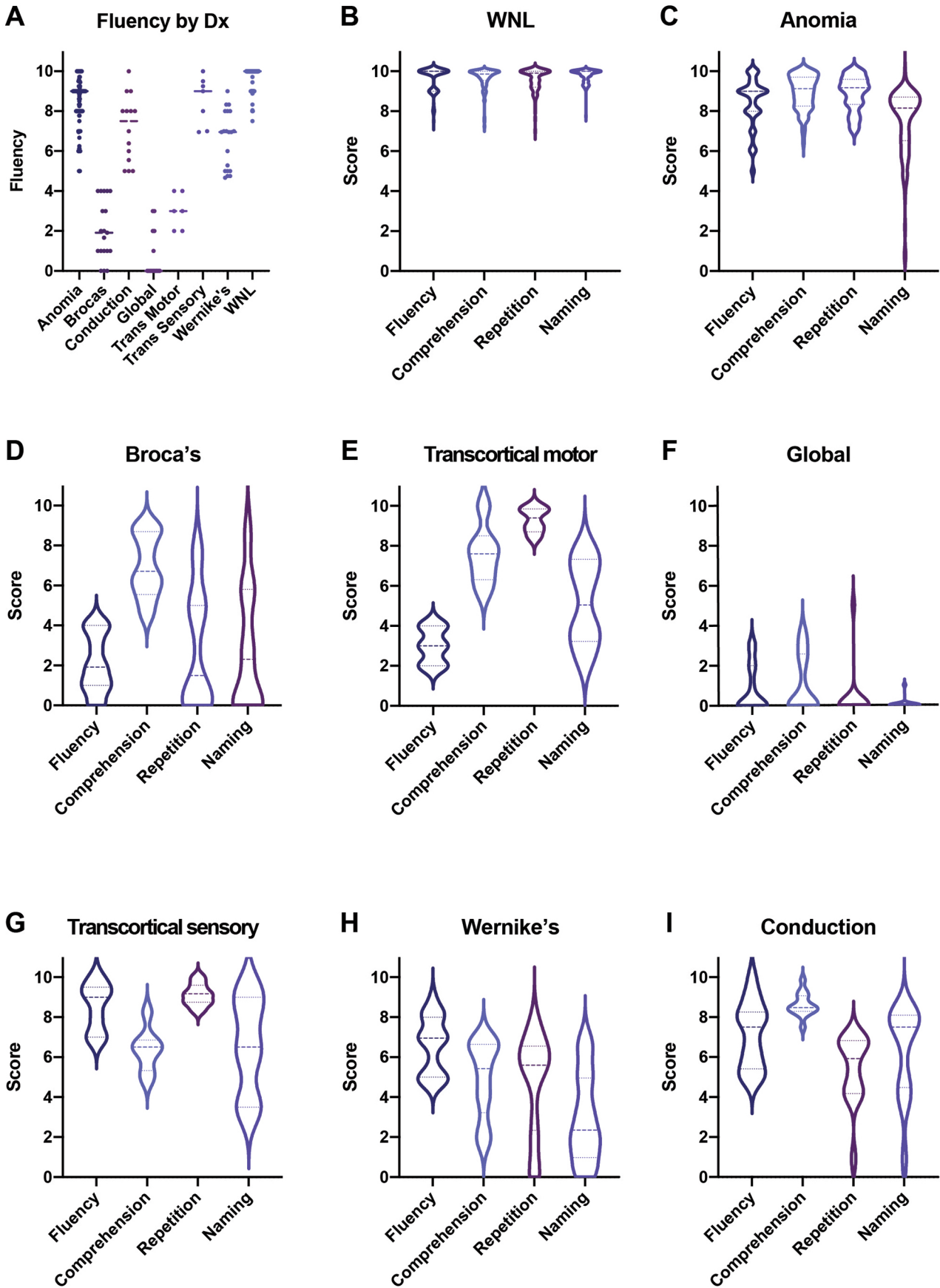
Pre-op (N=289): WNL 81.6%, anomia 15.5%, conduction 1.0%, transcortical sensory 0.7%, Broca's 0.7%, transcortical motor 0.3%, global 0%, isolation 0%, Wernicke's 0%.

Post op day 2 (N=289): WNL 37.6%, anomia 34.1%, conduction 5.1%, transcortical sensory 2.4%, Broca's 6.6%, transcortical motor 2.1%, global 4.8%, isolation 0.34%, Wernicke's 6.9%.

Post op day 30: WNL 73.5%, anomia 22.9%, conduction 0.57%, transcortical sensory 1.7%, Broca's 0%, transcortical motor 0.6%, global 0%, isolation 0.57%, Wernicke's 0%.

Abbreviations: WNL= within normal limits. WAB= western aphasia battery. Pre-op = pre-operative. Post-op= post-operative

Language characteristics by diagnosis: Post op day 2



Supplemental Figure S2: Post-operative language characteristics by diagnosis

A) Fluency scores at post-operative day 2 were plotted by diagnosis for each of the diagnoses on the x-axis, showing fluency scores of 4 or less are restricted to the 3 non-fluent aphasia diagnoses Broca's aphasia, transcortical motor aphasia and global aphasia. B – I show violin plots of the distribution of fluency, comprehension, repetition and naming scores for patients with each of the listed WAB diagnoses.