Resection of tumors involving language pathways requires the intraoperative identification of cortical and subcortical sites mediating the various language components, which determines the extent of resection (EOR). One of the critical points is which test(s) has to be performed during subcortical mapping. Object naming is the most used one, but it may have the limit to miss other components of language such as verb naming and generation, or comprehension of words or sentences, potentially resulting in permanent postoperative deficits. Patients can be submitted intraoperatively to complex batteries of tests, resulting in limited performance and high chance of intraoperative fatigue, resulting in poor mapping. We revised our experience on subcortical language mapping in a series of patients with language pathways gliomas, in which two strategies for subcortical mapping were applied: in a first group only naming was used; in the second group, object naming was prevalently used but integrated with other tests (verb naming and generation, comprehension of words or sentences, number recognition and calculation). Results were evaluated as immediate and permanent deficits by applying a large neuropsychological testing, and as EOR (on volumetric FLAIR or post Gd T1 images). The first group was composed of 221 gliomas (168 LGGs, 53 HGGs); 130 were frontal, 21 in the insula, 38 temporal, and 12 parietal. Object naming was applied for subcortical mapping in all cases; 198 patients had immediate postoperative deficits. Neuropsychological evaluation at 1 months showed complete recovery in 199 patients, a mild impairment was documented in 22 patients (12 posterior temporal tumors, 6 parietal tumors, and 4 posterior insular tumors); at 3 months evaluation, 15 patients still showed a mild impairment, mainly those whose tumors were located in the posterior temporal and parietal location. EOR was total and subtotal in 48.9% and 41.5% of cases. Fatigue was observed in 12% of patients with large volume tumors. The second group was composed of 179 gliomas (155 LGGs, 24 HGGs); 61 were frontal, 38 insular, 45 temporal and 11 parietal. Object naming was used for initial mapping and for locating main subcortical tracts (IFOF, ARC, UNC); in addition, when the initial portion of these tracts was identified, other tests were applied during subcortical mapping. 165 patients had immediate postoperative deficits, only 2 patients had a mild impairment at 1 and 3 months evaluation. EOR was total and subtotal in 49.6% and 47.4% of cases. Patient fatigue was shown in 9% of patients. Object naming can be safely used during subcortical mapping for resection of tumors in frontal lobe; resection of tumors in posterior temporal, insular and parietal areas requires the use of a larger battery of tests, which did not influence the chance to reach a total or subtotal resection, nor results in a higher chance of patient fatigue.