This study examines the occurrence of perceived features of apraxia of speech (AOS) in two groups of speakers, carefully diagnosed with nonfluent aphasia (NA) with AOS or fluent aphasia (FA) with phonemic paraphasia (PP), in comparison with age and sex matched nonaphasic controls. Visual analog scaling (VAS) of subphonemic distortion, dysprosody and disfluency was completed for five repetitions of five multisyllabic words. Each word production was also transcribed using broad phonemic transcription. Total number of errors, error consistency by error type and location, as well as error variability, were determined for each speaker. Statistical analyses (ANOVA) demonstrated that while NA and FA groups differed significantly ($p < .05$) from controls for VAS judgments of distortion, dysprosody and disfluency, they did not differ from each other. In addition, phonemic level analyses did not differentiate significantly ($p > .05$) between the aphasia groups for total number of errors or for error consistency by error type or location, the groups did differ based on error variability. VAS findings concur with previous narrow transcription studies of FA with PP and NA with AOS, and extend the similarity between aphasia groups for this difficult polysyllabic repetition task to the secondary AOS characteristics of dysprosody and disfluency.