

**3. Evans, W. & Quique, Y. (2021) Understanding Speed–Accuracy Processing Dynamics in Aphasia Using Response Time Modeling *Semin Speech Lang* 42(03): 240-255 DOI: 10.1055/s-0041-1727251**

People with aphasia demonstrate language impairments evident in both performance accuracy and processing speed, but the direct relationship between accuracy and speed requires further consideration. This article describes two recent attempts to make quantitative progress in this domain using response time modeling: the diffusion model (Ratcliff, 1978) applied to two-choice tasks and a multinomial ex-Gaussian model applied to picture naming. The diffusion model may be used to characterize core linguistic processing efficiency and speed–accuracy tradeoffs independently, and research suggests that maladaptive speed–accuracy tradeoffs lead to performance impairments in at least some people with aphasia. The multinomial ex-Gaussian response time model of picture naming provides a simple and straightforward way to estimate the optimal response time cutoffs for individual people with aphasia (i.e., the cutoff where additional time is unlikely to lead to a correct response). While response time modelling applied to aphasia research is at an early stage of development, both the diffusion model and multinomial ex-Gaussian response time model of picture naming show promise and should be further developed in future work. This article also provides preliminary recommendations for clinicians regarding how to conceptualize, identify, and potentially address maladaptive speed–accuracy tradeoffs for people with aphasia.