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Multinomial Processing Tree Models and Psychological Assessment

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Psychological assessment often focuses on individual participants in testing situations. Psychometric models for assessment include parameters for individual and item differences, but they rarely model the cognitive processes involved in responding to test items. Information processing models for categorical data called multinomial processing tree (MPT) models. While MPT models have been developed mostly for experimental situations, there is a largely untapped potential for using them for assessment. Thus, the goal of the paper is to discuss how MPT models can be developed into cognitively based psychometric tools.