

Supplementary material: How attention influences perceptual decision making: Single-trial EEG correlates of drift-diffusion model parameters

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In-sample Posterior Predictive Distributions: Low Noise Condition

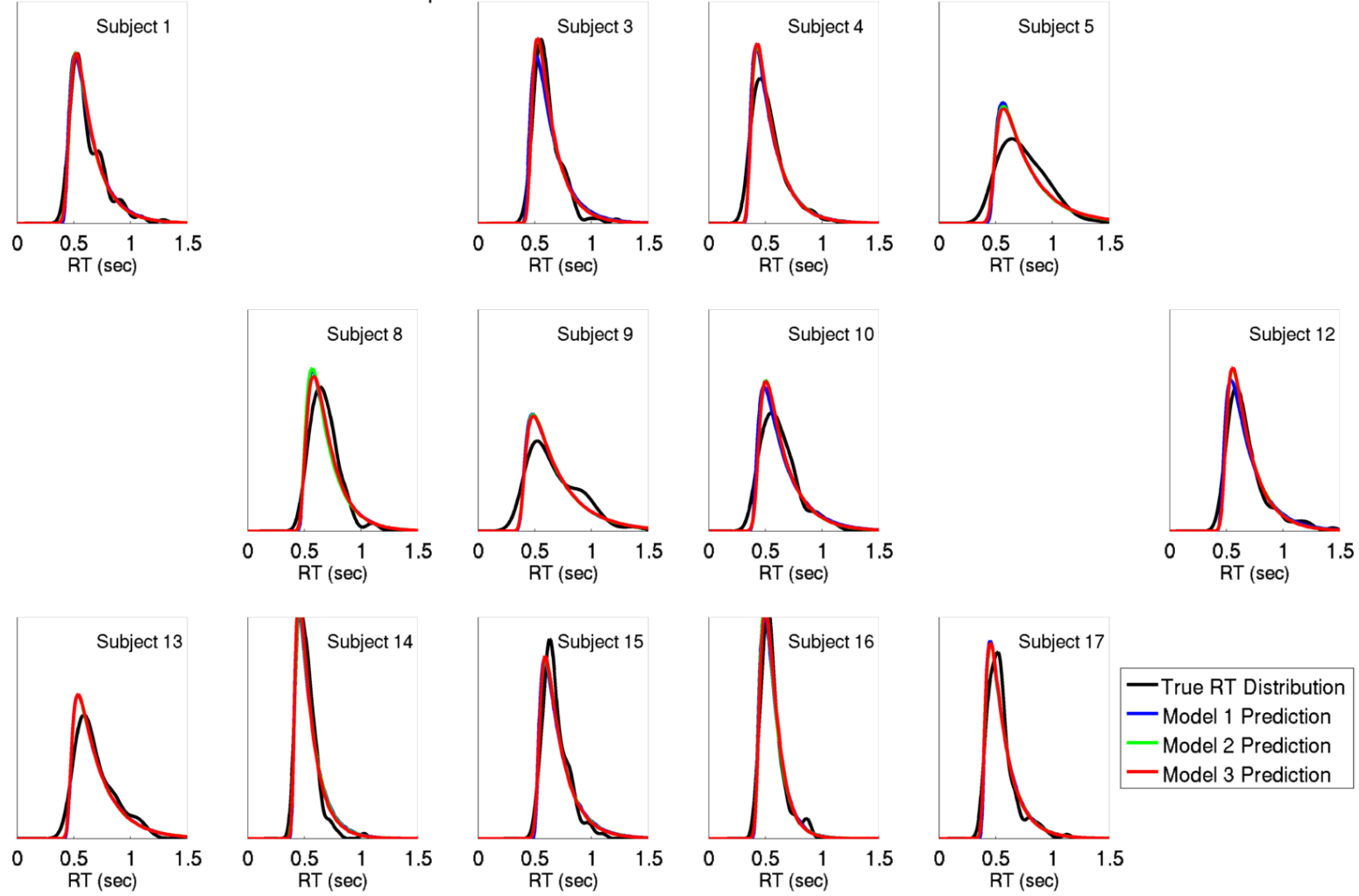


Figure 9: For each subject, posterior predictive distributions of correct-RTs during trials from the low noise condition were compared to true correct-RT distributions from training (i.e. “in-sample”) data. Note that subjects 2, 6, 7, and 11 were randomly chosen to be left out of the training set in order to test the prediction ability of each model for unknown subjects. Each model performs well at predicting training correct-RT data from known subjects in the low noise condition. More comprehensive evaluations of in-sample prediction are provided in **Table 3** in the paper.

In-sample Posterior Predictive Distributions: Medium Noise Condition

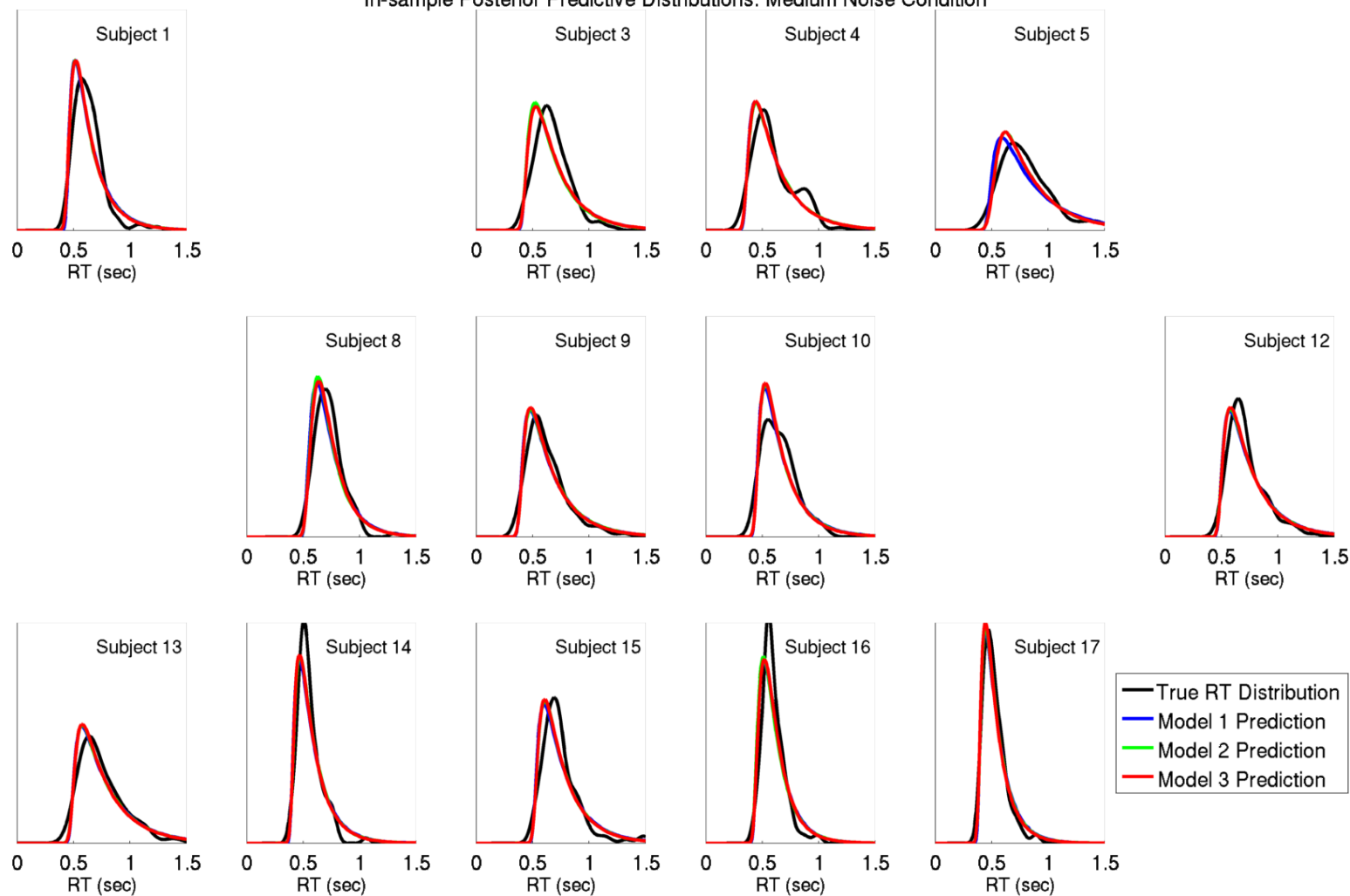


Figure 10: For each subject, posterior predictive distributions of correct-RTs during trials from the medium noise condition were compared to true correct-RT distributions from training data. Each model performs well at predicting training correct-RT data from known subjects in the medium noise condition. More comprehensive evaluations of in-sample prediction are provided in **Table 3** in the paper.

In-sample Posterior Predictive Distributions: High Noise Condition

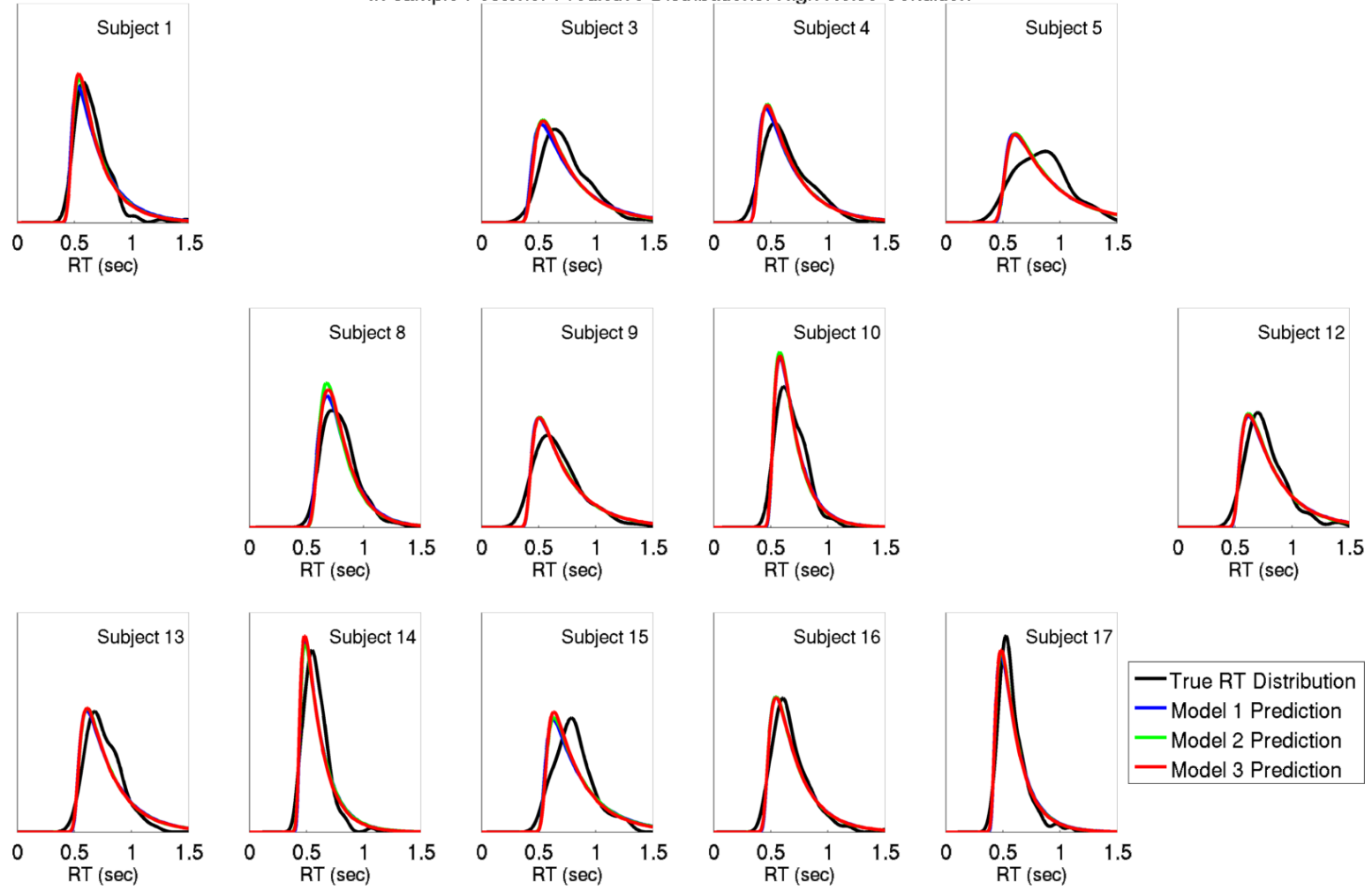


Figure 11: For each subject, posterior predictive distributions of correct-RTs during trials from the high noise condition were compared to true correct-RT distributions from training data. Each model performs well at predicting training correct-RT data from known subjects in the high noise condition. More comprehensive evaluations of in-sample prediction are provided in **Table 3** in the paper.

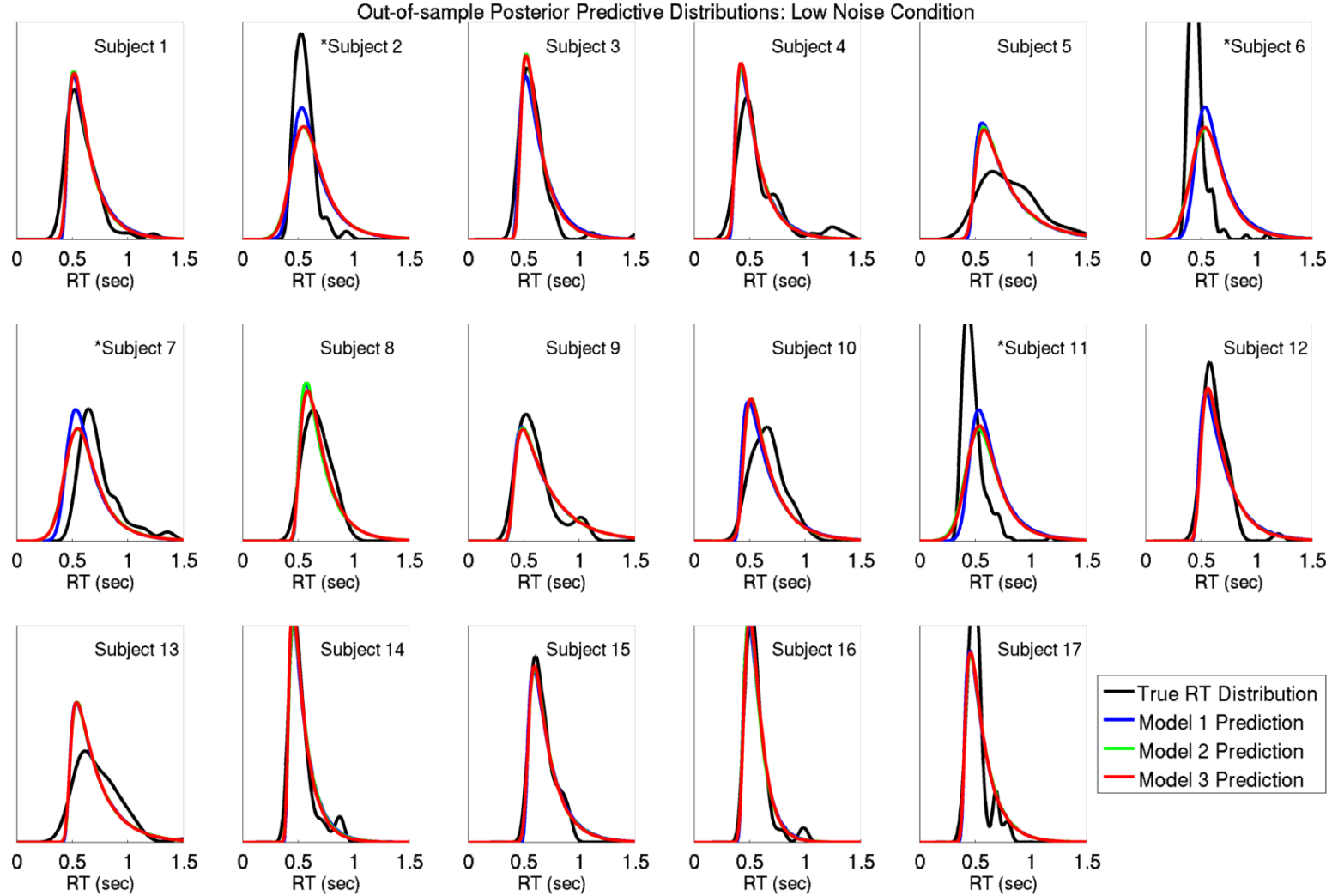


Figure 12: For each subject, posterior predictive distributions of correct-RTs during trials from the low noise condition were compared to true correct-RT distributions from test (i.e. “out-of-sample”) data. The predictive ability of Models 2 and 3 were influenced by observed single-trial EEG data during the randomly-assigned test trials. Note that the predictive ability of each model for subjects 2, 6, 7, and 11 is decreased in comparison to the other subjects because these subjects were left out of the training data. More comprehensive evaluations of out-of-sample prediction for both “known” and “unknown” subjects are provided in **Tables 1** and **2** in the paper.

Out-of-sample Posterior Predictive Distributions: Medium Noise Condition

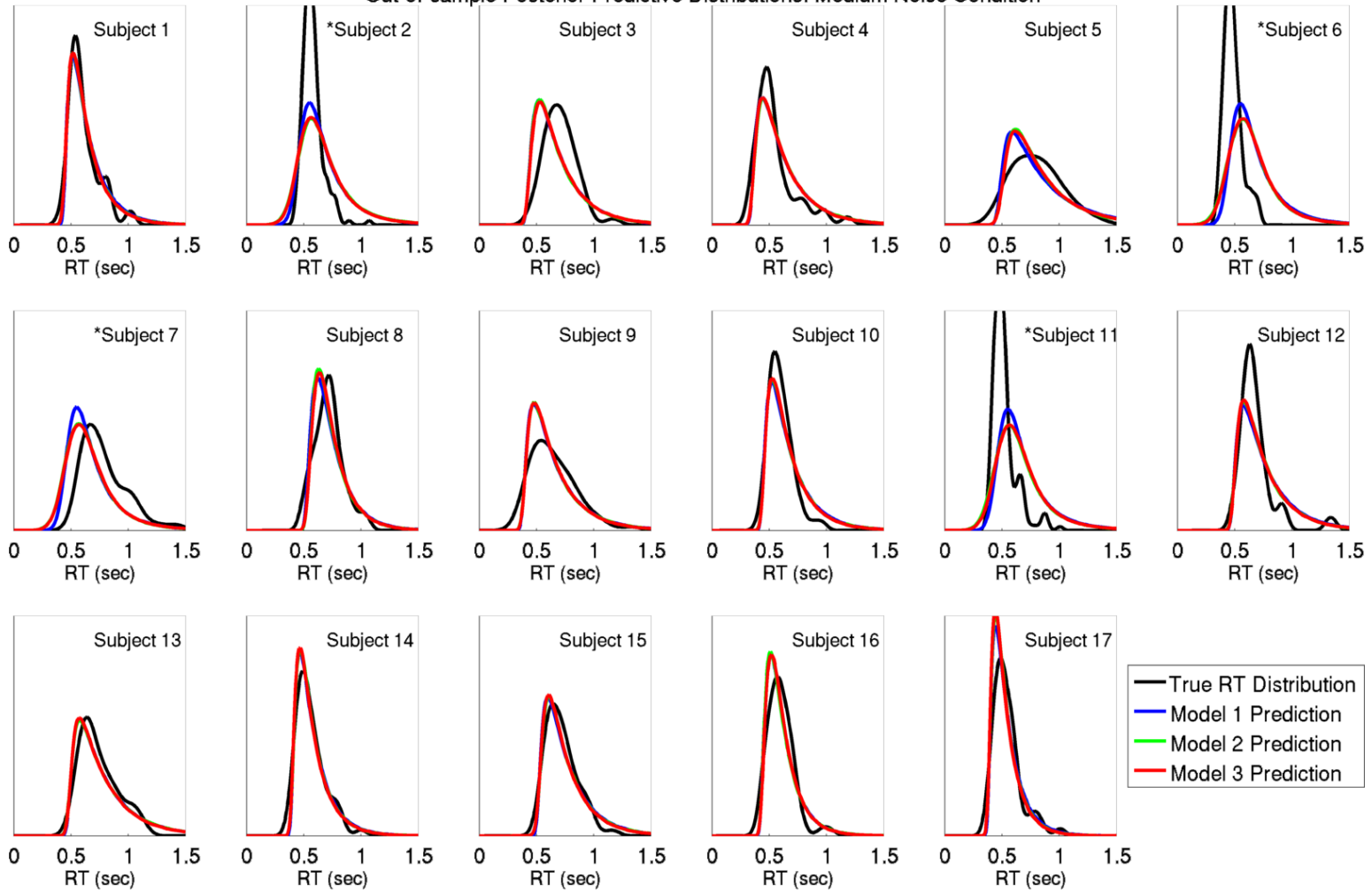


Figure 13: For each subject, posterior predictive distributions of correct-RTs during trials from the medium noise condition were compared to true correct-RT distributions from test data. More comprehensive evaluations of out-of-sample prediction for both “known” and “unknown” subjects are provided in **Tables 1** and **2** in the paper.

Out-of-sample Posterior Predictive Distributions: High Noise Condition

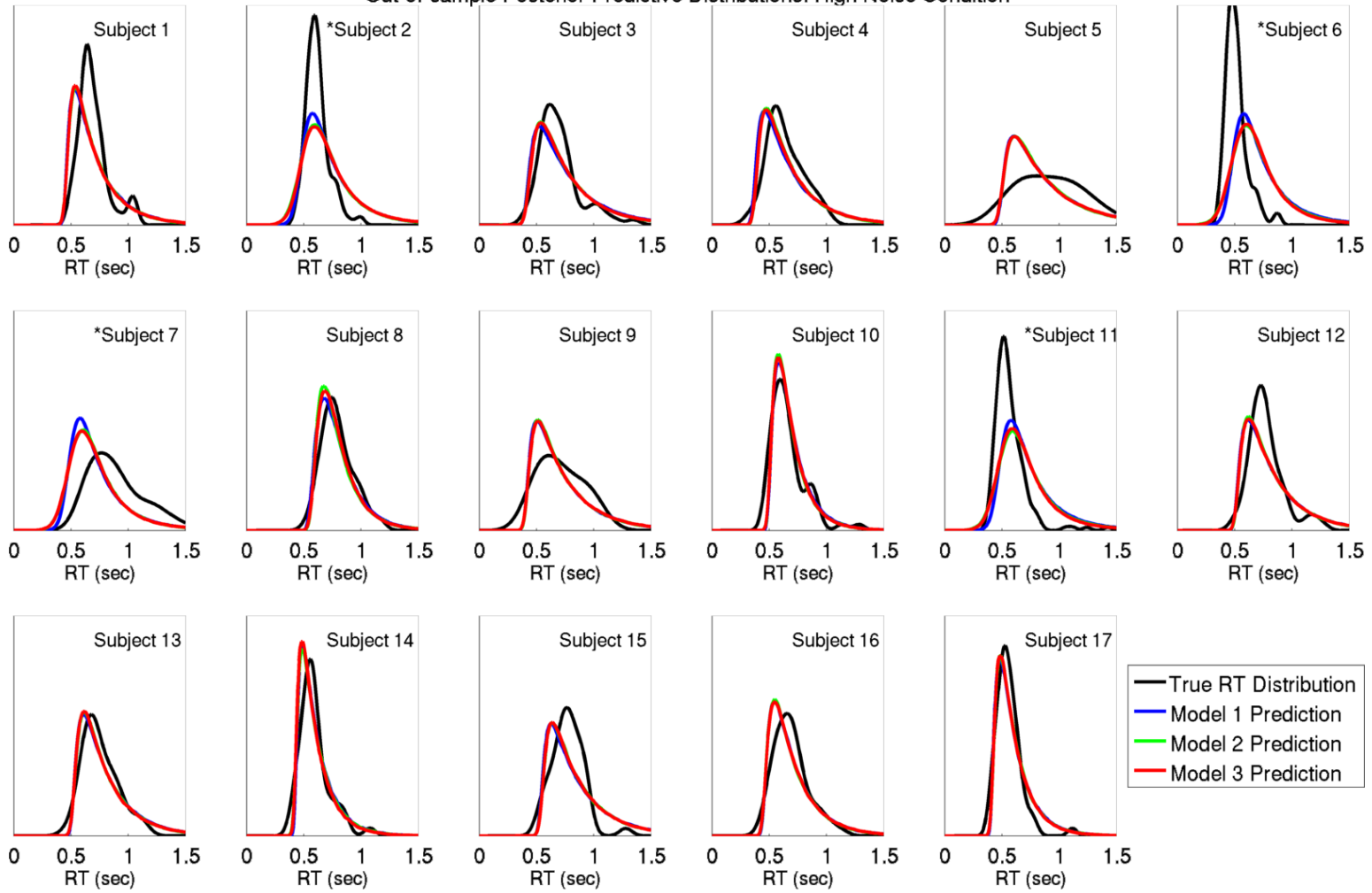


Figure 14: For each subject, posterior predictive distributions of correct-RTs during trials from the high noise condition were compared to true correct-RT distributions from test data. More comprehensive evaluations of out-of-sample prediction for both “known” and “unknown” subjects are provided in **Tables 1** and **2** in the paper.