

Supplementary Material

Inhibition in Task Switching in Older versus Younger Adults: A Diffusion Model Analysis

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Figure Captions

Supplementary Figure 1.

Box plots of (A) task inhibition effects (ABA minus CBA) and (B) response inhibition effects (response repetitions minus response switches) in diffusion model parameters threshold separation a , drift rate v , non-decision time t_0 , and variability of non-decision time s_{t0} , for younger and older adults. Units on the y-axis represent the untransformed values as obtained by the fast-dm software (Voss & Voss, 2007), which uses a diffusion constant of 1.0. The units represent amount of evidence for a ; evidence per time for v ; time (in seconds) for t_0 and s_{t0} . Black lines indicate the median. Lower and upper end of box indicate 25th and 75th percentile of distribution, respectively. Length of box indicates interquartile range (IQR), i.e., difference between 25th and 75th percentiles. Whiskers represent the range of the non-outlying data. Circles indicate outliers (values between 2 IQRs and 3 IQRs from the end of a box). Asterisks indicate extreme outliers (values more than 3 IQRs from the end of a box).

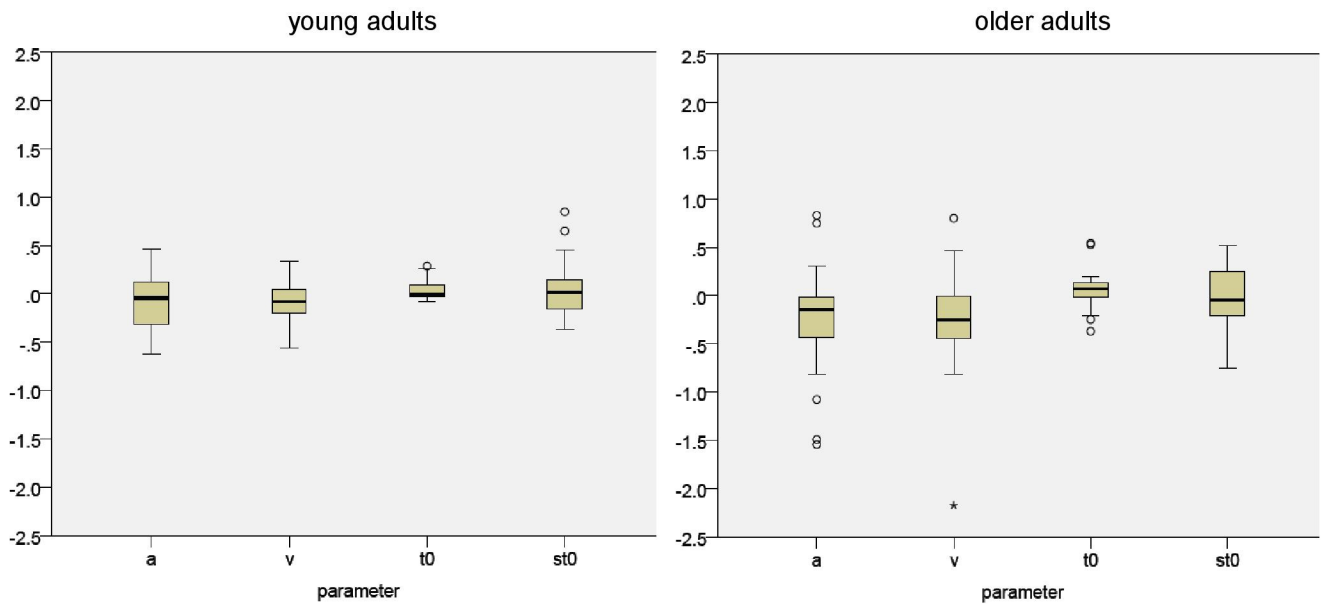
Supplementary Figure 2.

Empirical and predicted cumulative density function (cdf) plots for each individual and each task inhibition condition (ABA, CBA). Cumulative density is plotted on the y-axis, RT in ms is plotted on the x-axis. RTs of error responses are multiplied by (-1). P values refer to the Kolmogorov-Smirnov (KS) statistic of model fit provided by the fast-dm software (Voss & Voss, 2007). P values < .05 indicate significant deviations between empirical and predicted RT distribution.

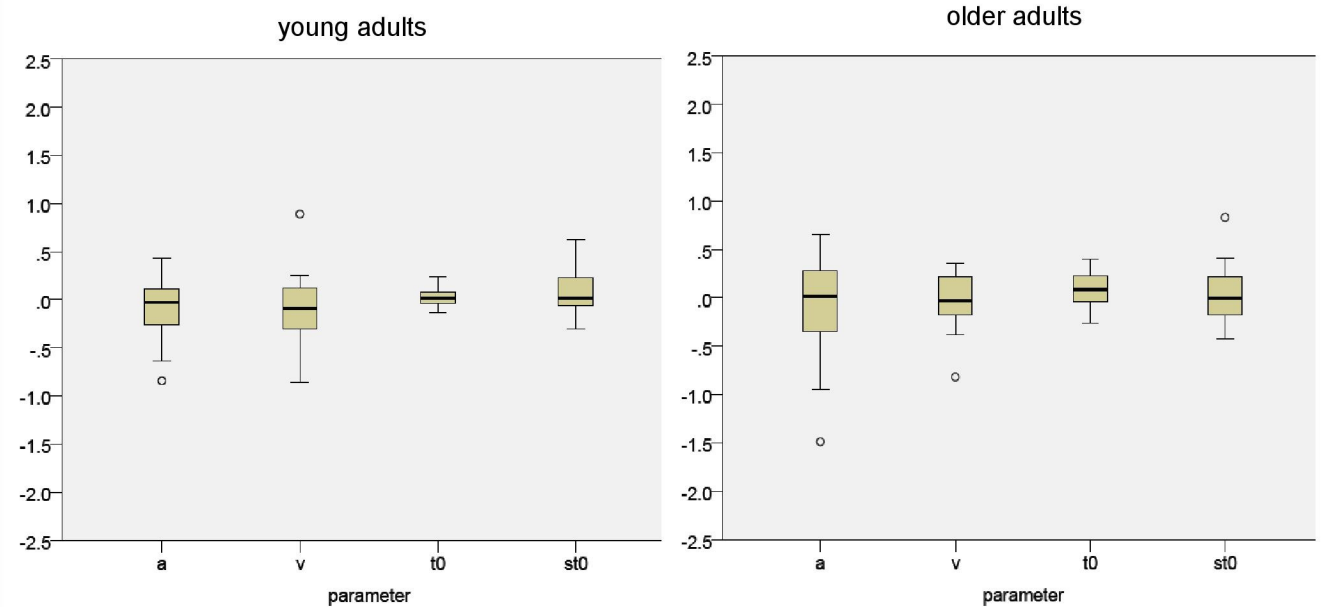
Supplementary Figure 3.

Empirical and predicted cumulative density function (cdf) plots for each individual and each response inhibition condition (response repetition, response switch). Cumulative density is plotted on the y-axis, RT in ms is plotted on the x-axis. RTs of error responses are multiplied by (-1). P values refer to the Kolmogorov-Smirnov (KS) statistic of model fit provided by the fast-dm software (Voss & Voss, 2007). P values < .05 indicate significant deviations between empirical and predicted RT distribution.

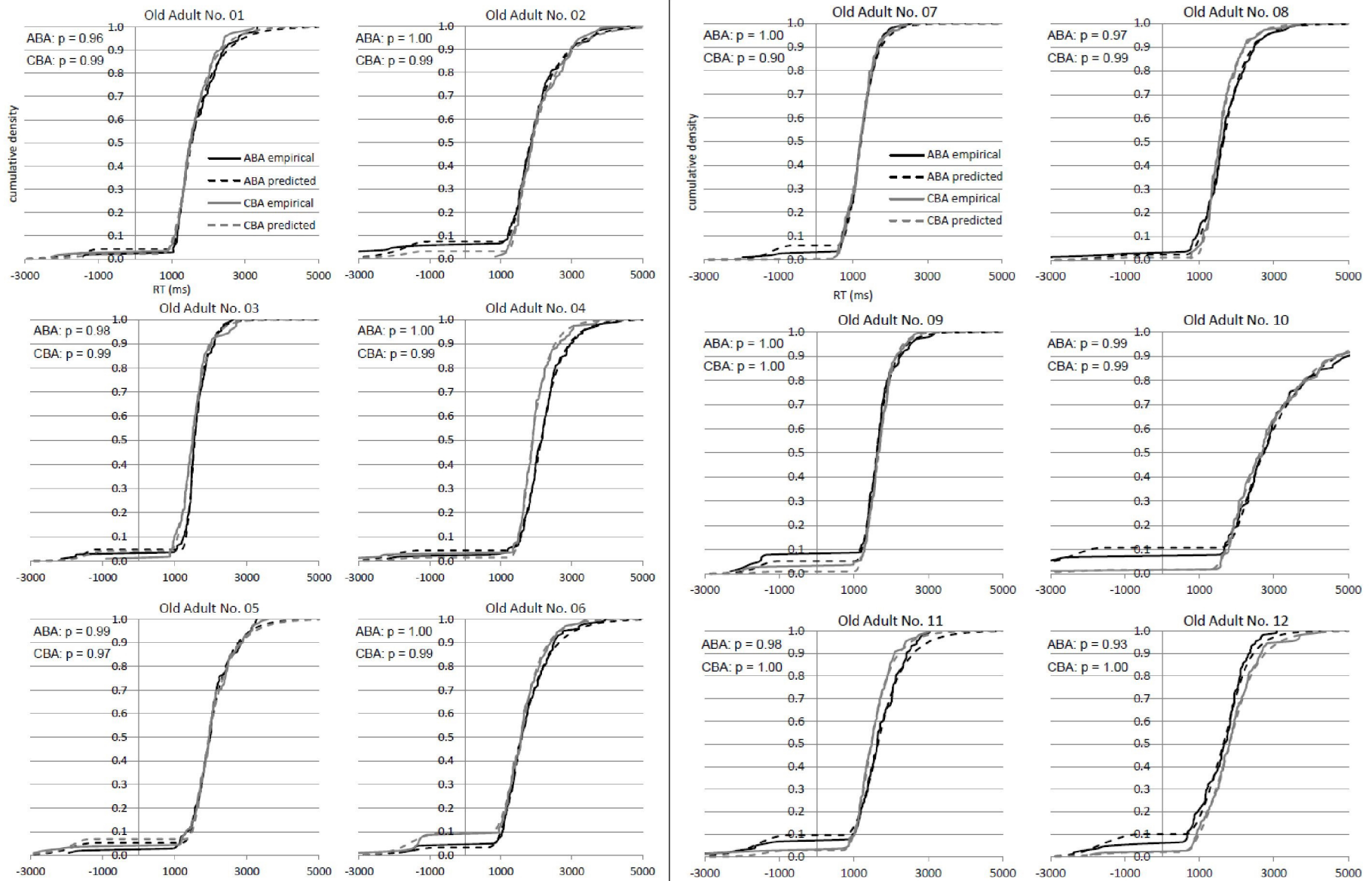
(A) Task Inhibition (ABA-CBA)



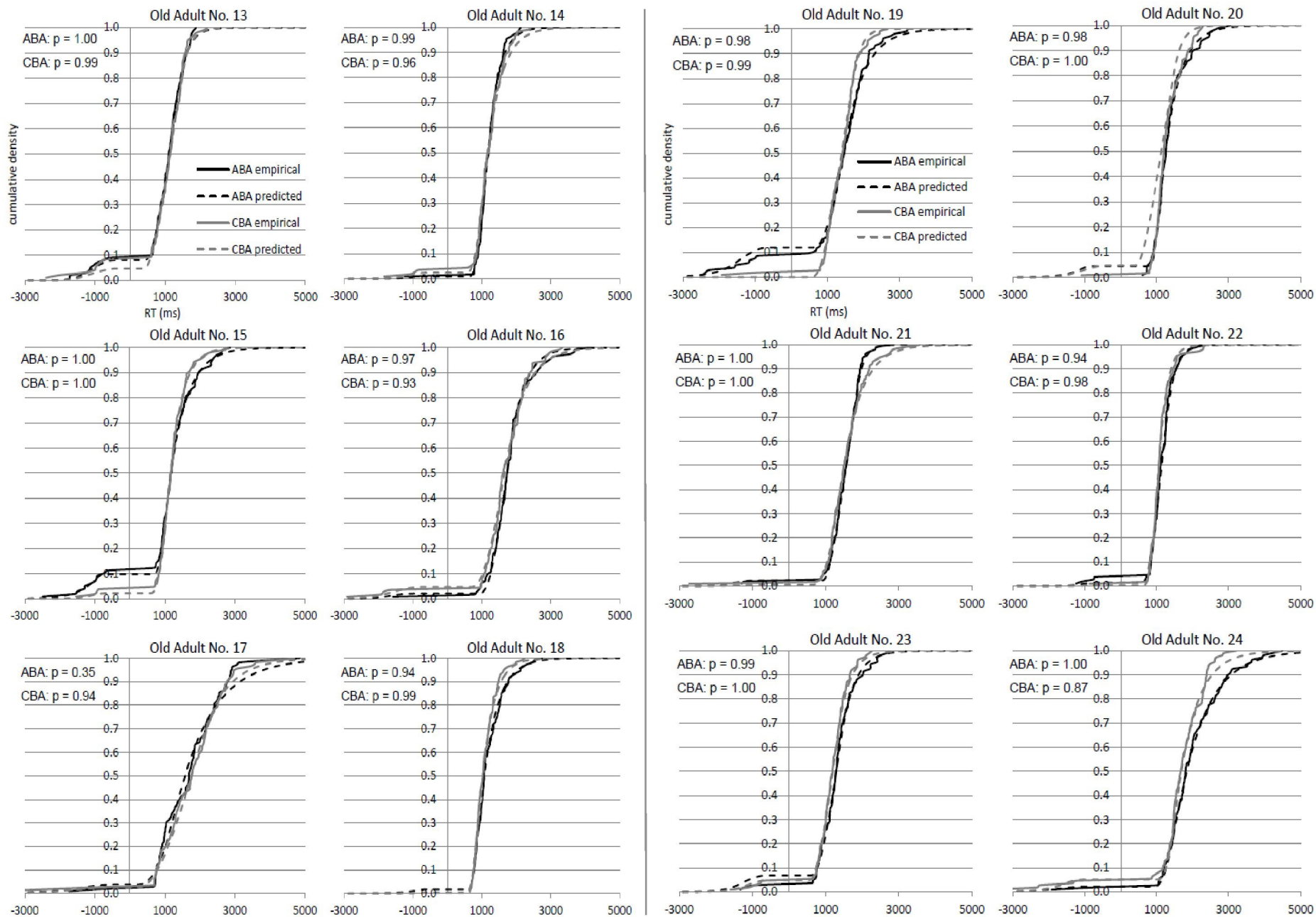
(B) Response Inhibition (Response Repetition-Switch)



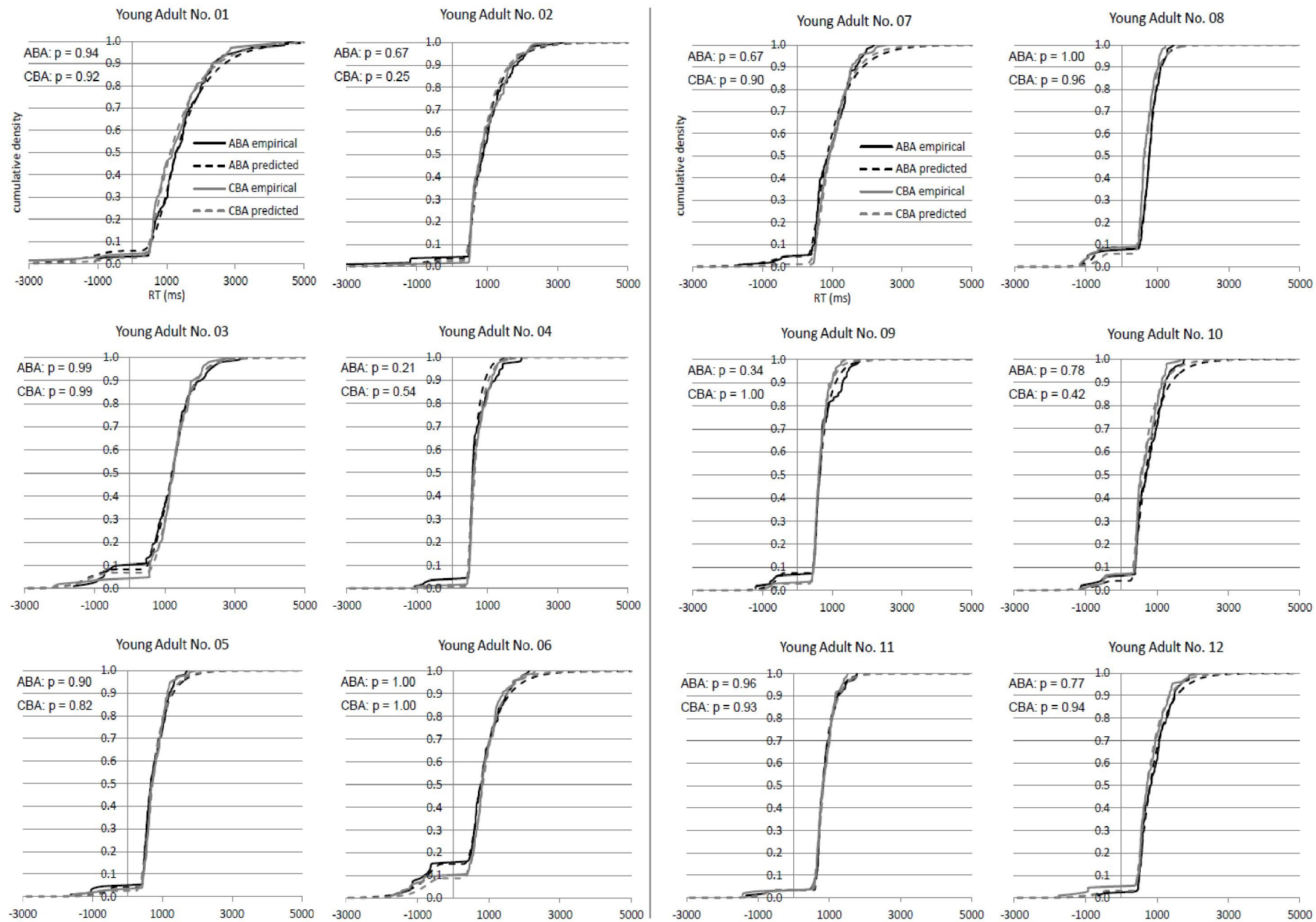
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Supplementary Figure 2. Empirical and predicted cumulative density function (cdf) plots for each individual and each task inhibition condition (ABA, CBA). Cumulative density is plotted on the y-axis, RT in ms is plotted on the x-axis. RTs of error responses are multiplied by (-1). *P* values refer to the Kolmogorov-Smirnov (KS) statistic of model fit provided by the fast-dm software (Voss & Voss, 2007). *P* values < .05 indicate significant deviations between empirical and predicted RT distribution.

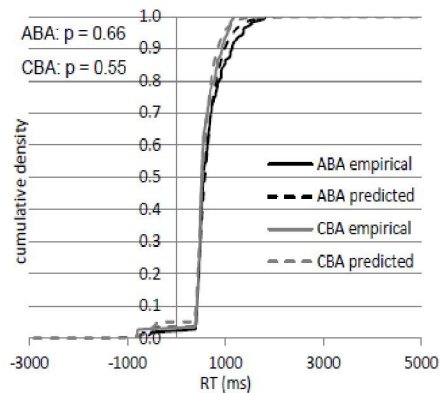


Supplementary Figure 2 (continued).

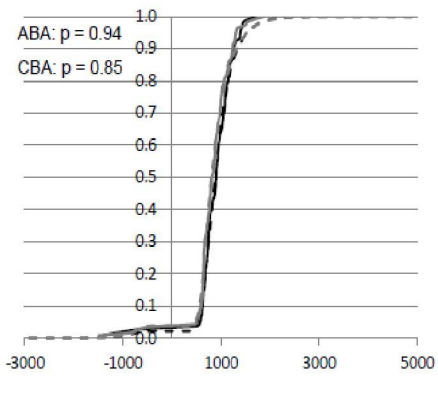


Supplementary Figure 2 (continued).

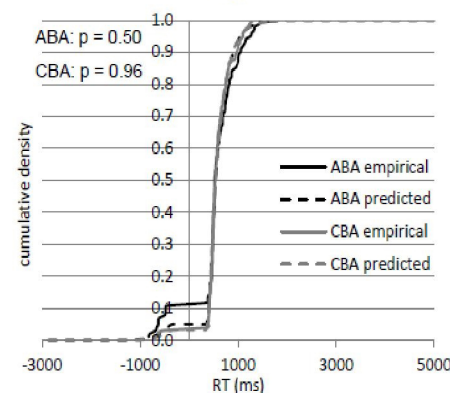
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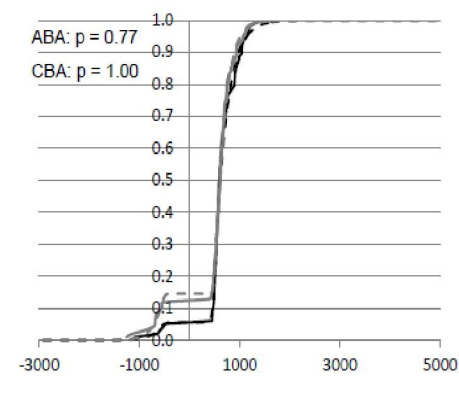
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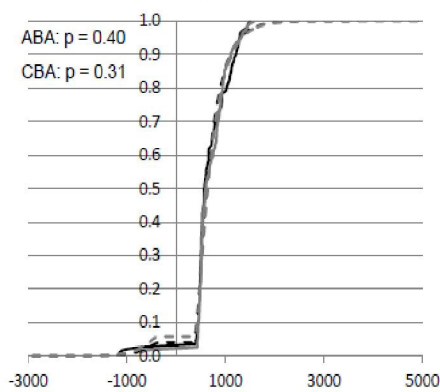
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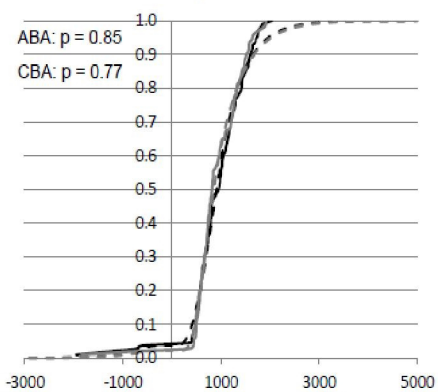
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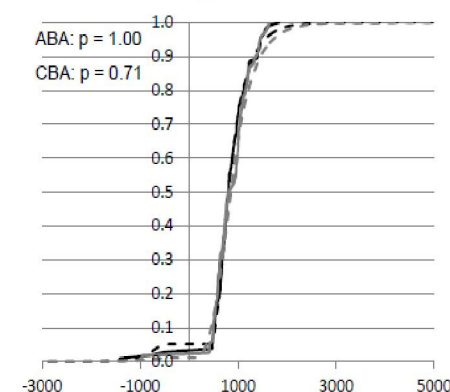
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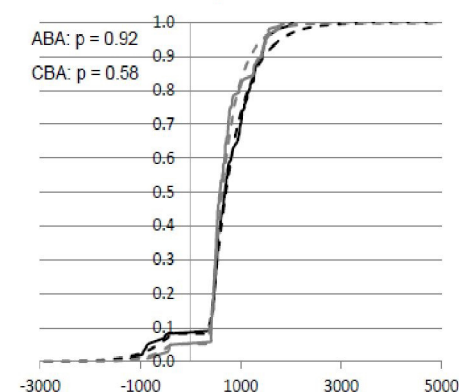
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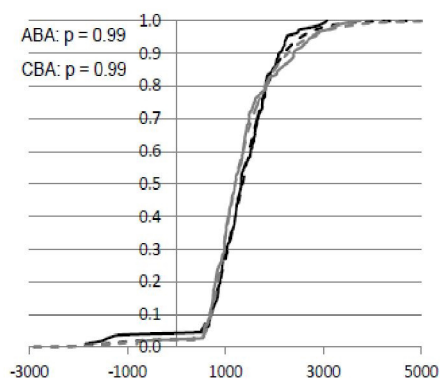
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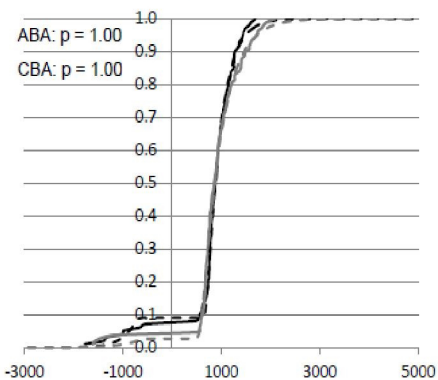
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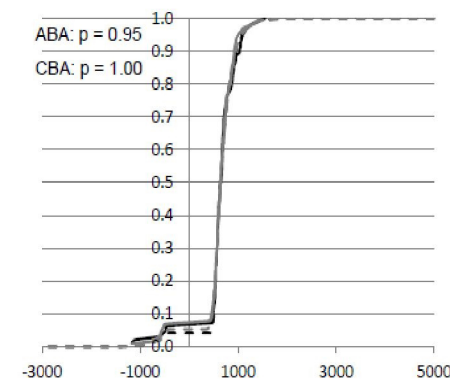
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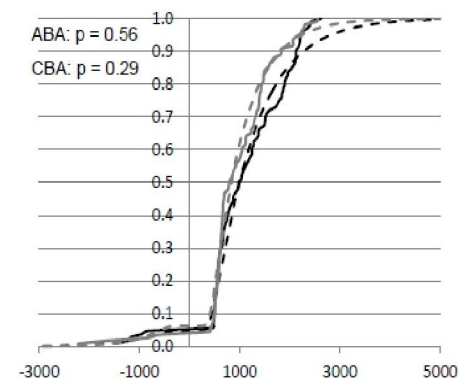
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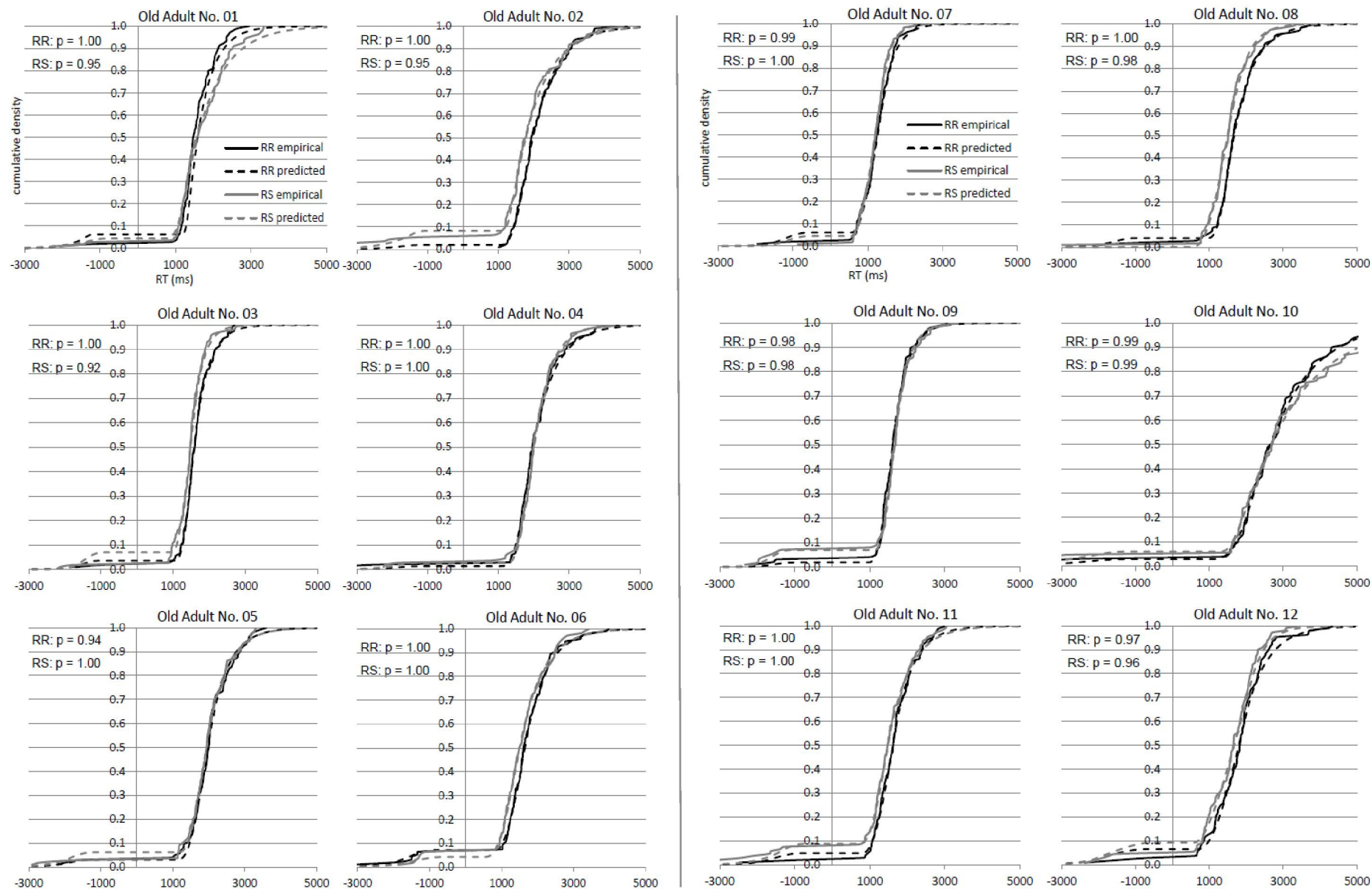


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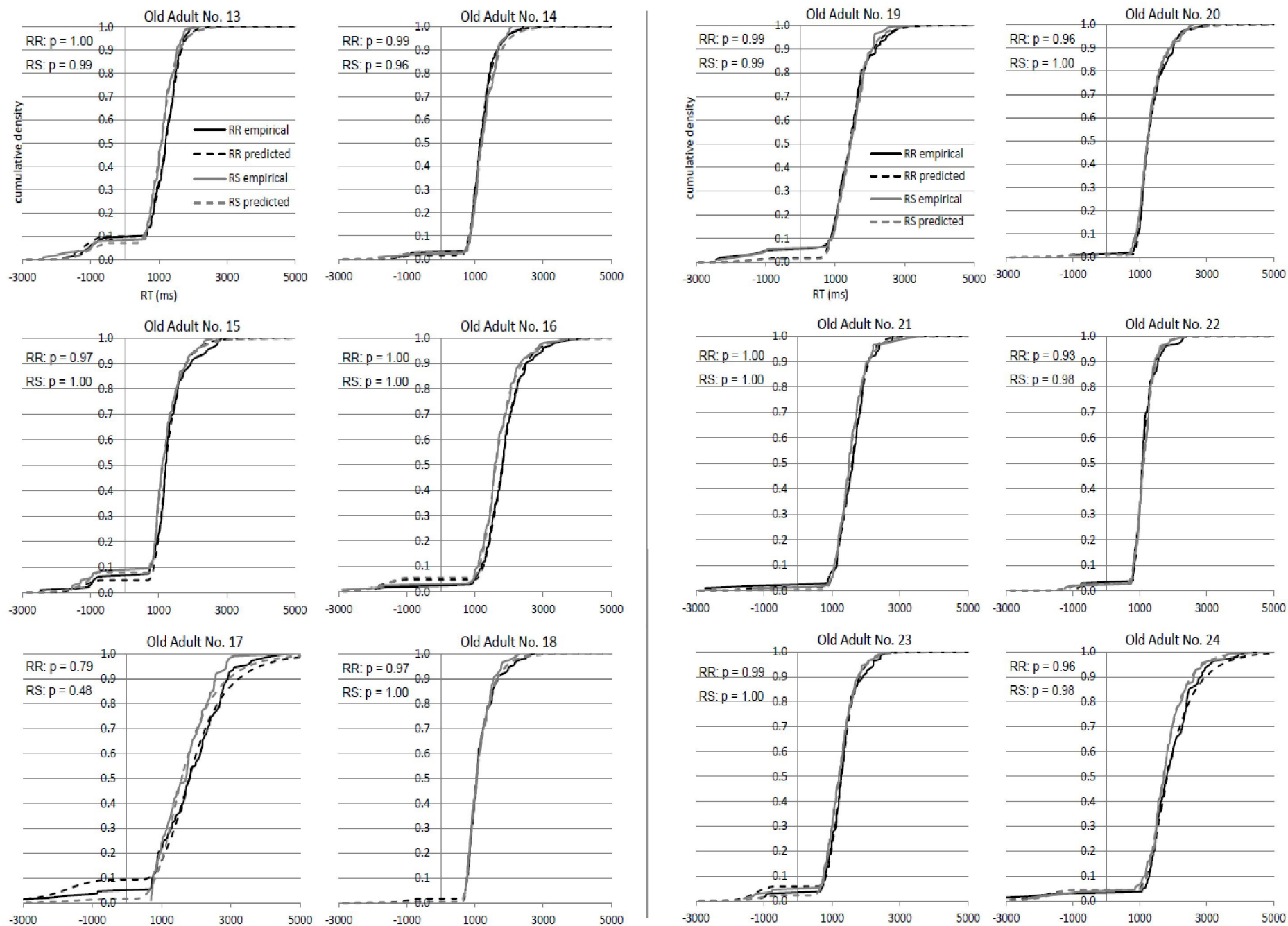


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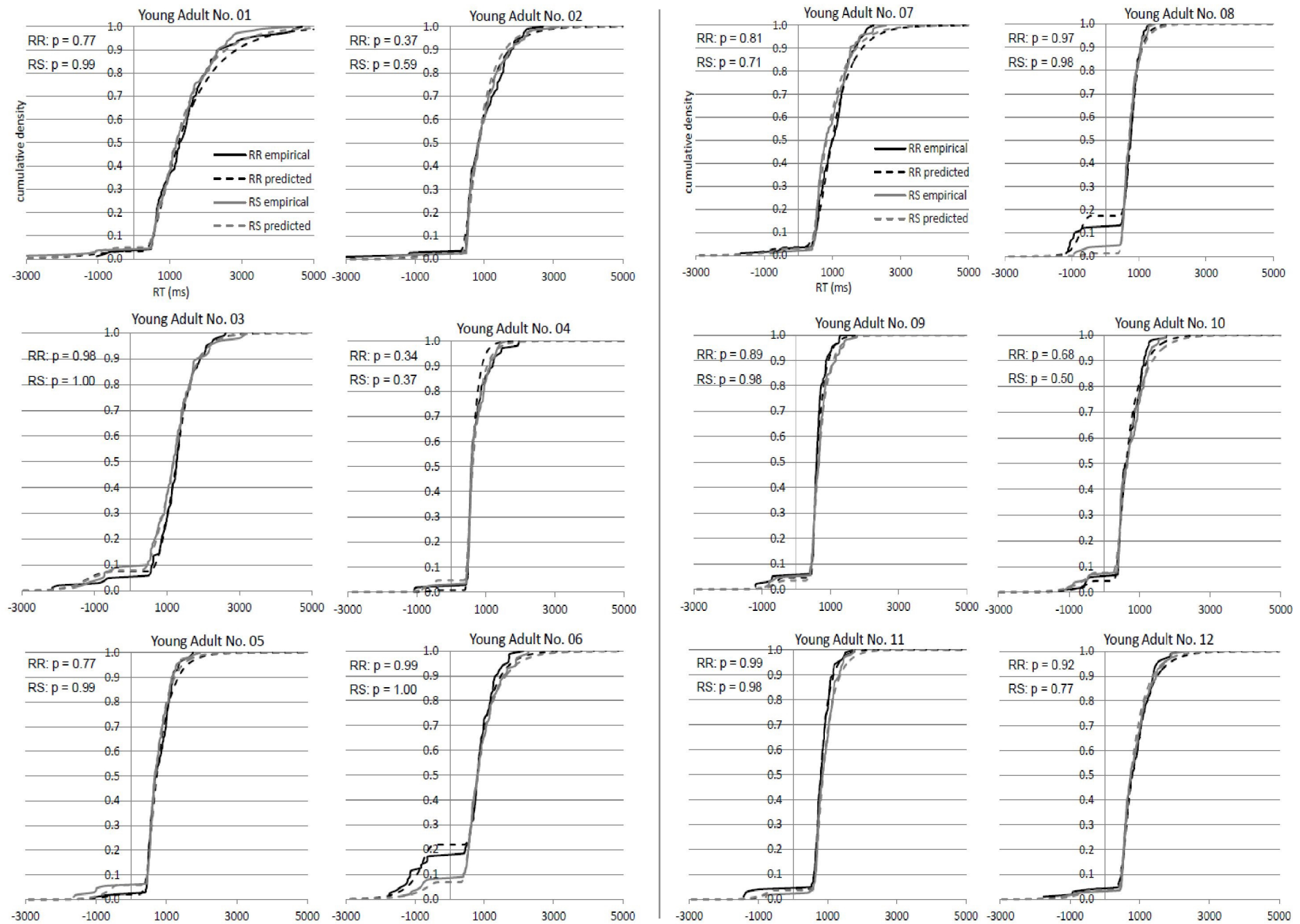




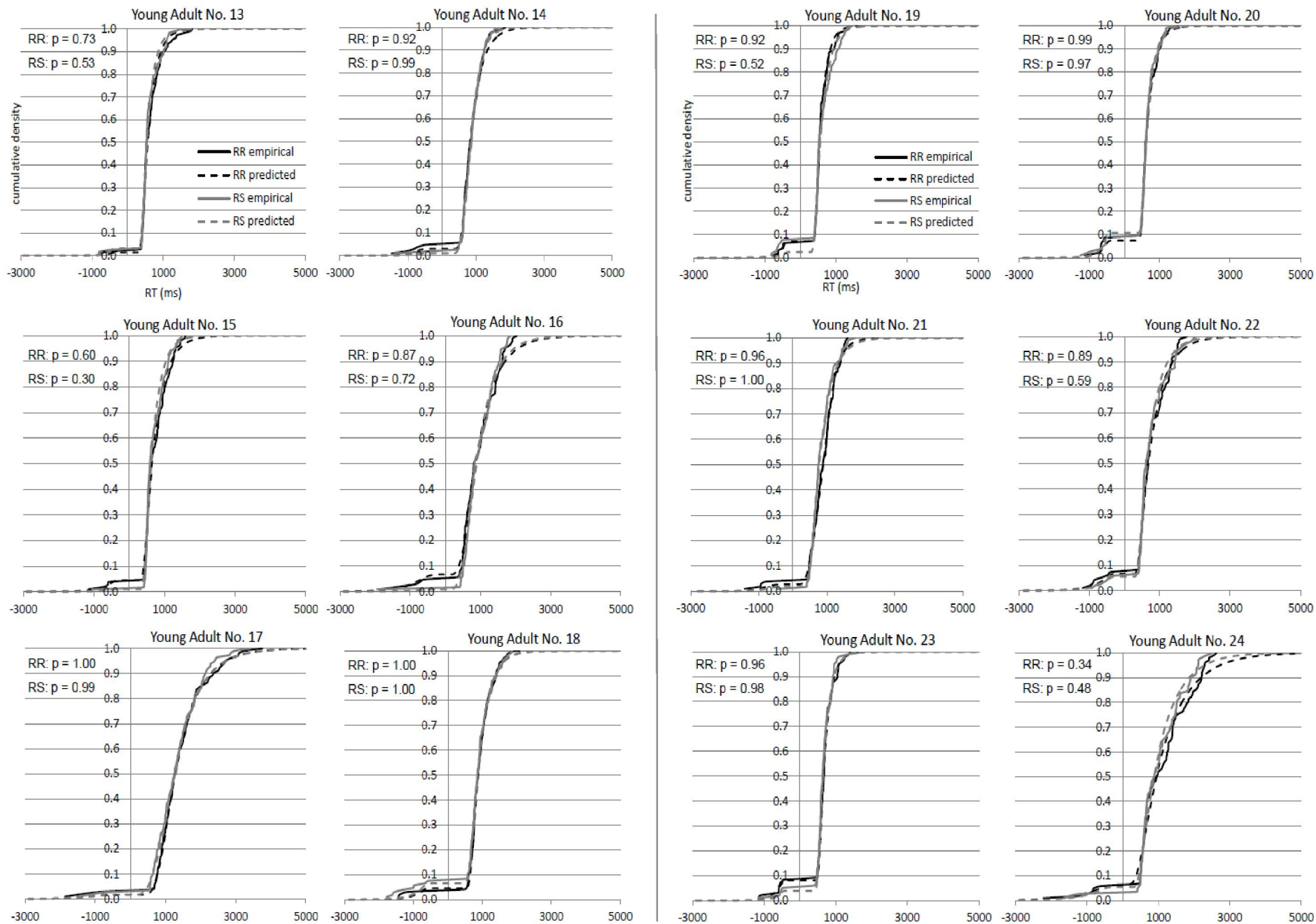
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Supplementary Figure 3 (continued).



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