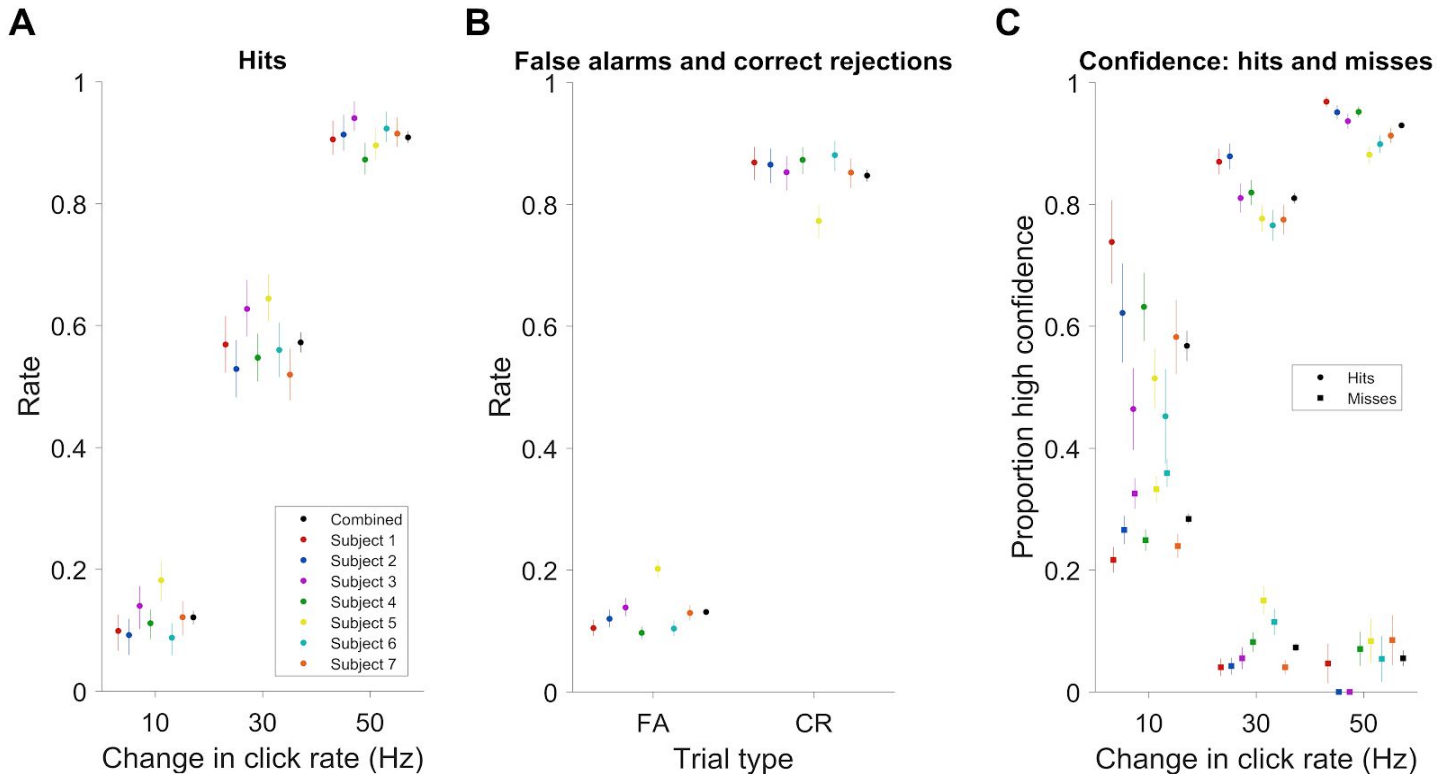

Figure S1. Task performance and confidence ratings: individual and pooled subject data, Related to Figure 2: (**A**) Hit rate as a function of change in click rate for each subject (colored) and combined data (black), calculated as a proportion of trials in which a generative change in click rate occurred (same conventions as Figure 2). (**B**) FA and CR rates across individual and combined subjects. FA rates calculated as a proportion of all trials. CR rates calculated as a proportion of catch trials. (**C**) Proportion of high confidence trials for hits (circles) and misses (squares) across individuals and combined subject as a function of change in click rate. Error bars are +/- SEM.

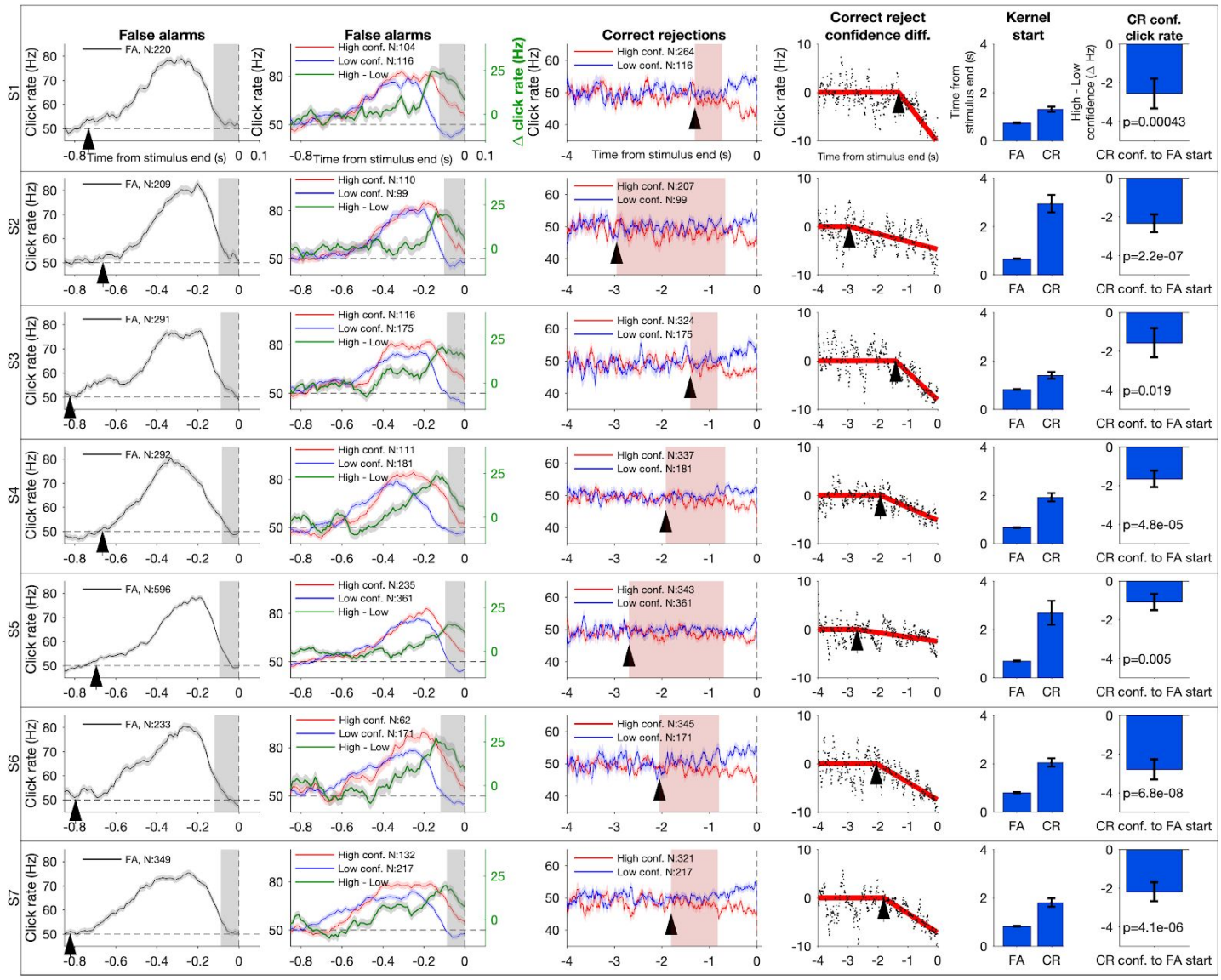

Figure S2. FA and CR reverse correlations: individual subject data, Related to Figure 3: Detection report kernels (*1st column*), detection report confidence kernels (*2nd column*), CR confidence kernels (*3rd column*) for each of the 7 subjects. The red shaded region represents the interval between the start of the CR confidence and FA kernels. The start of CR confidence kernels were estimated from a fit of the CR confidence kernels expressed as a difference of high and low confidence (*4th column*). The start of FA and CR confidence kernels are shown in the *5th column*, where error bars represent 95% CI. The final column depicts the difference in mean click rate between high and low confidence CR trials for each subject within the intervals highlighted in red in column 3. Here, error bars represent the pooled standard error of the mean and significance calculations were determined from t tests. Conventions for columns 1-3 are the same as Figure 3. The 7 subjects completed 2100, 1962, 2101, 3096, 3091, 2286, and 2747 trials, respectively.

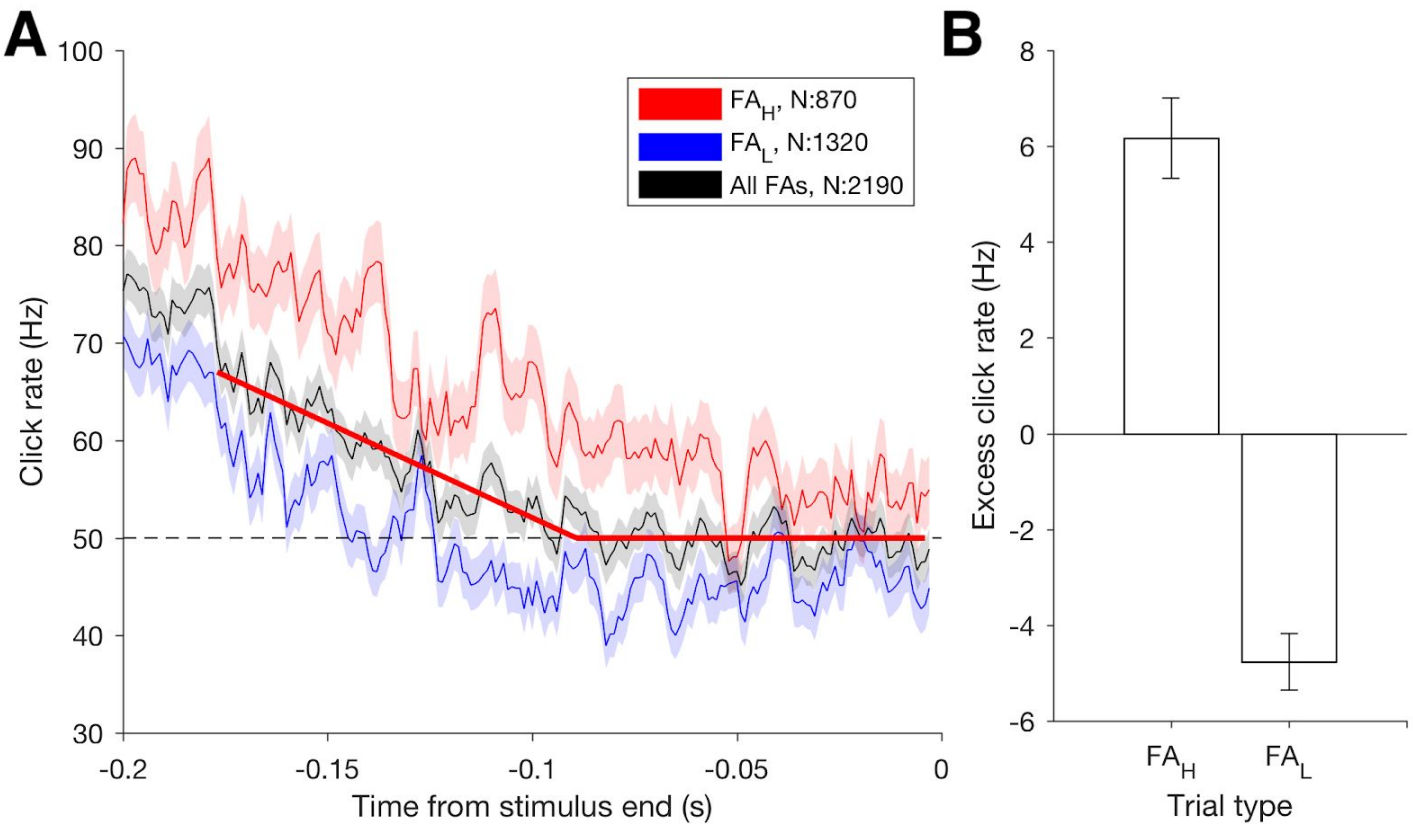

Figure S3. Pooled estimate of detection kernel endpoint, Related to Figure 3: (**A**) Kernel endpoint was estimated by convolving clicks with a square-wave filter (5 ms width) so that clicks would have minimal influence on the kernel after they occurred (black trace). The descending phase of the kernel was fit with a 2-piece linear function (red lines). The two free parameters were the point at which the kernel returned to the 50 Hz baseline (inflection point of red lines) and the descending slope from 75% of the peak detection report kernel height. The same convolution was applied to the high (red) and low (blue) confidence FA trials to visualize the difference between them. (**B**) mean excess click rate above or below the 50 Hz baseline for high (left bar) and low (middle bar) FA confidence trials from kernel endpoint until stimulus end. Shaded region on traces and error bars are +/- SEM.

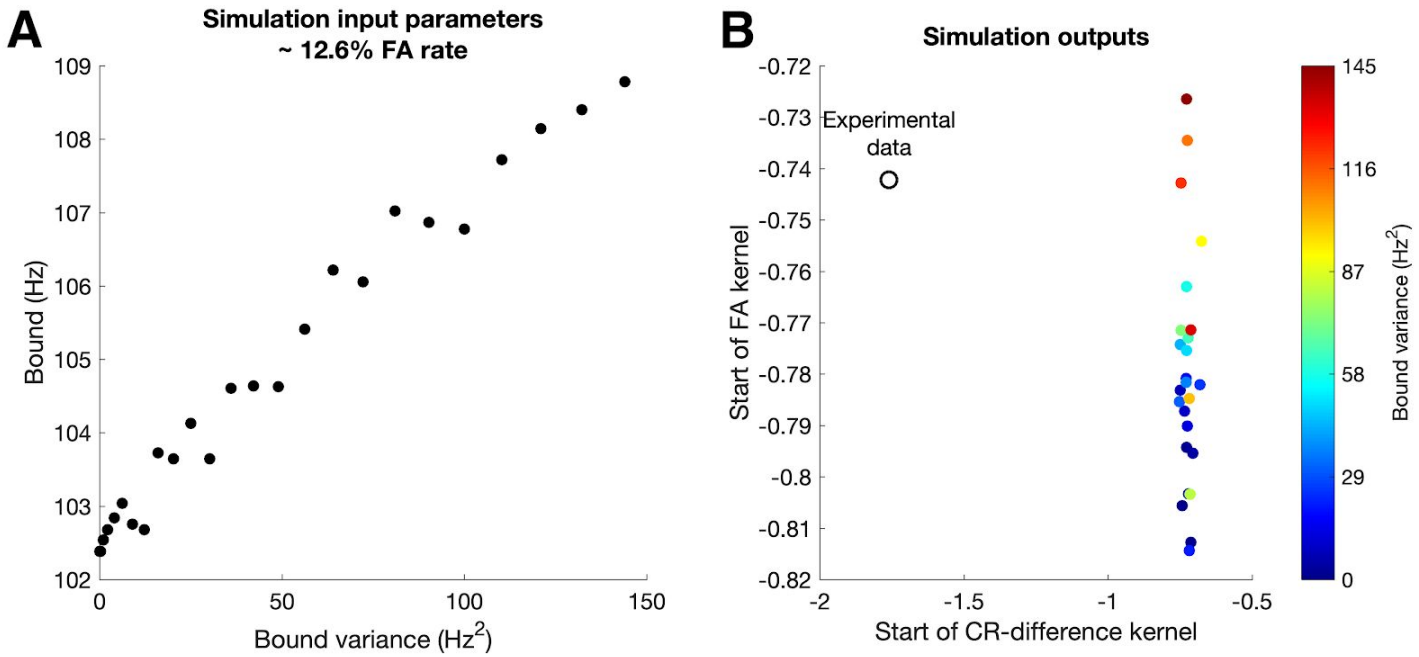

Figure S4. Simulated effects of bound variability on RC kernels and hit rates, Related to Figure 4: (**A**) The bound variability parameters were chosen from a range of 0-144 Hz^2 and corresponding bounds that resulted in approximately 12.6% FA rates were used for simulations. This resulted in 25 sets of bound and bound variability simulation conditions. All other simulation parameters were set to the maximum likelihood estimations of the combined experimental data. (**B**) Increasing bound variability tended to shorten the estimated detection kernel but did not have an appreciable effect on the CR-confidence kernel. Thus, bound variability could not recapitulate the earlier start of CR confidence difference kernel in the experimental data (black circle).