Supplemental Material for Evaluating 'Graphical Perception' with CNNs

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This material contains several plots accompanying the main manuscript.

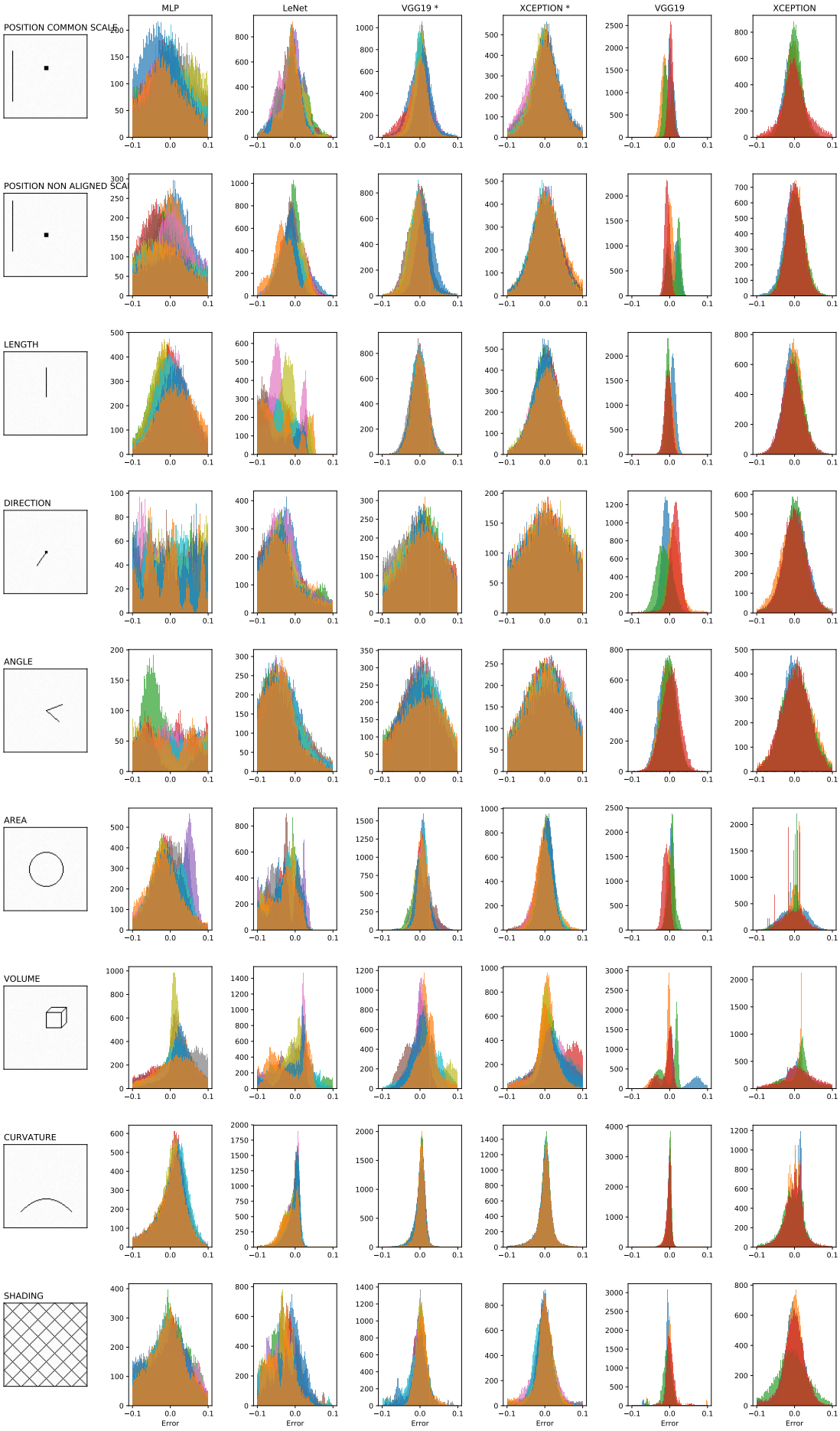

Fig. 1: **Error distributions.** Error distributions of our networks when decoding elementary perceptual tasks.

Fig. 2: **Cross-network variability.** Our networks fail when the stimuli changes through translation or stroke width. The x-labels indicate the training configuration while the y-labels indicate the stimuli variation. Numbers represent MLAE.

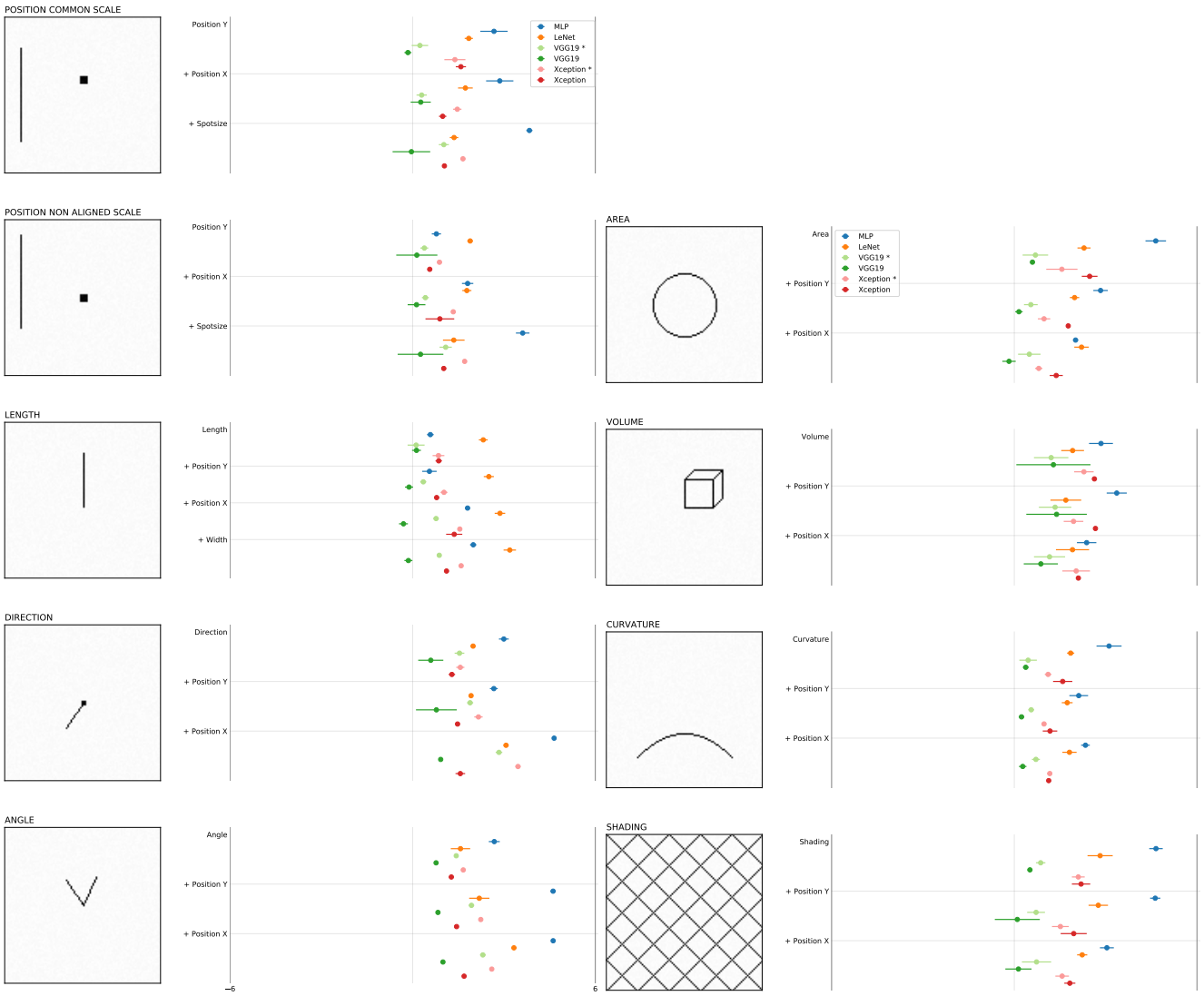

Fig. 3: **Elementary perceptual tasks.** Midmean logistic absolute errors (MLAE) for all generated stimuli and across all networks. The * indicates networks which use ImageNet weights instead of bein trained from scratch.

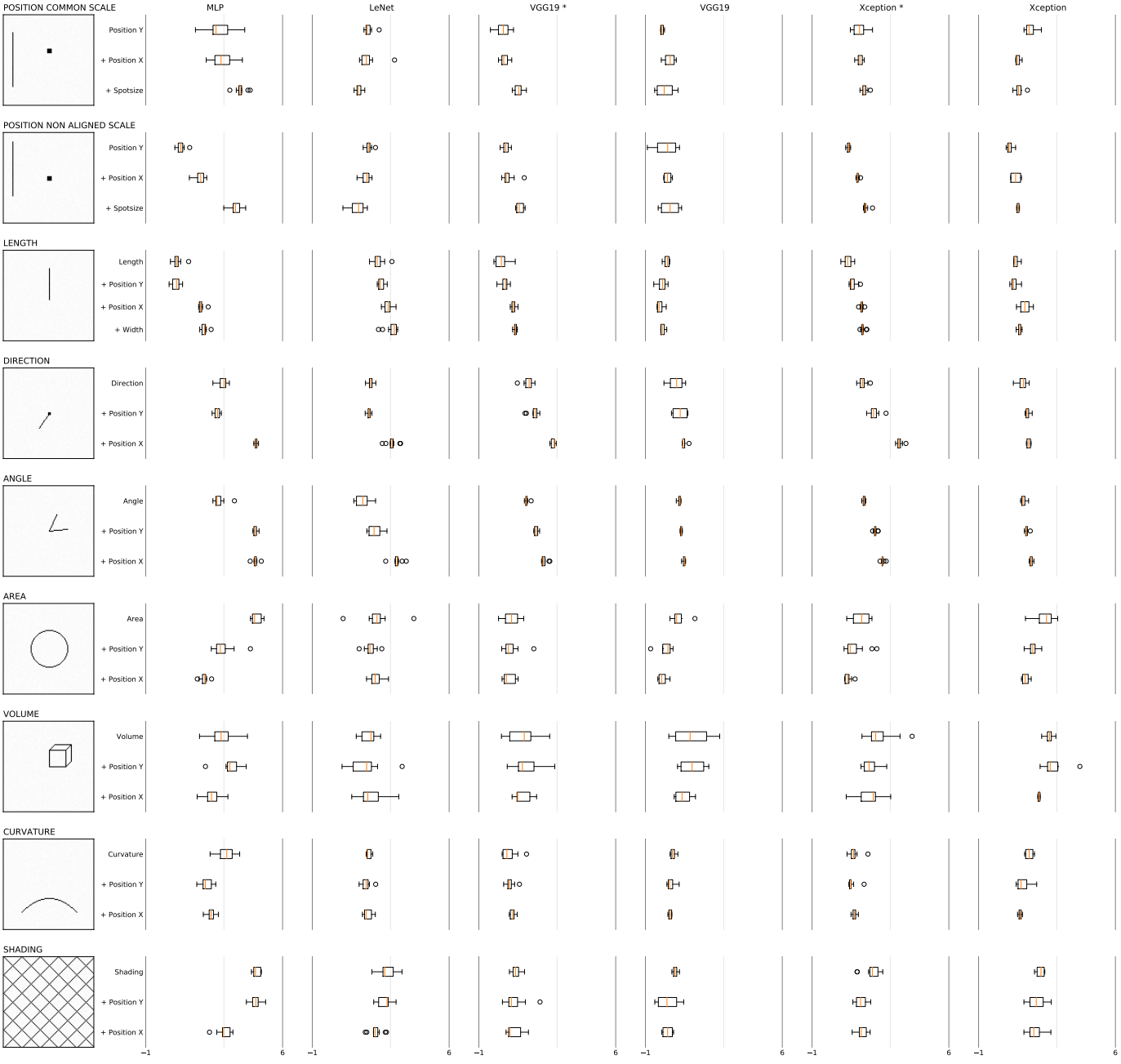

Fig. 4: **Elementary perceptual tasks.** Midmean logistic absolute errors (MLAE) visualized as box plots.

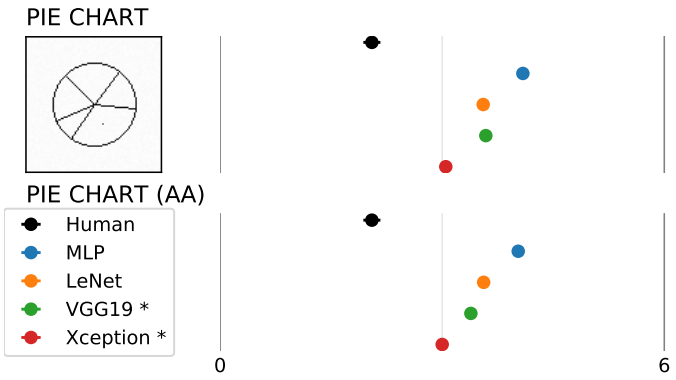

Fig. 5: **Anti-aliasing.** We test whether anti-aliasing effects the performance of our networks on pie charts by measuring MLAE. The difference is not statistically significant ($F(1,30) = 0.341, p > 0.5$).