



Figure 3: Simulation of the impact of shifting the start context integration rate parameter β_{start} on the probability of starting recall by serial position (**Left**) and the recall probability by serial position (**Right**) for CMR. Using parameters fit to PEERS free recall data, β_{start} is shifted from 0 to 1 in increments of 0.1, with the color of the lines indicating the value of the parameter.

Alt Text. Two side-by-side line charts (using a shared colour legend with values 0.0 – 0.9) illustrate how gradually increasing the start-of-list context-integration parameter β_{start} reshapes simulated recall behaviour in CMR. Left panel – “Probability of N-th Recall”: For 16 study positions on the x-axis, each coloured line shows the chance that the first item recalled (i.e., recall initiation) comes from that position. Lower β_{start} values (purple/blue) yield a steep recency peak at the final position, whereas higher values (green/yellow) progressively shift initiation toward the first item, producing a strong primacy peak. Right panel – “Recall Rate”: The same colour-coded lines plot overall recall probability for every serial position. As β_{start} increases, the recency advantage at the end of the list diminishes while recall of early positions improves, creating the classic U-shaped primacy–recency curve. Together the panels show that β_{start} governs how strongly the end-of-list context is blended back toward the start: small values favour recency-driven cueing, large values favour primacy-driven cueing, and intermediate values balance the two.