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Forward and Backward Serial Recall

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Abstract

Although recall proceeds most naturally in the order of encoding, people can also recall items in reverse order. Prior studies raise the question of whether recall performance differs as a function of direction. To shed new light on this question, we examined the temporal dynamics of forward and backward serial recall. Consistent with prior work, we find similar levels of recall accuracy in forward and backward recall. However, detailed analyses of recall dynamics demonstrated higher accuracy for recall initiation and lower accuracy for recall transitions in backward compared to forward recall. Pre-cuing subjects to the direction of recall eliminated the difference in recall initiation and reduced, but did not erase, effects seen in recall transitions. We show that backward recall benefits and suffers from the recency effect: By promoting access to end of list items, recency facilitates initiation, but it hinders correct transitions by promoting fill-in-errors following omissions.