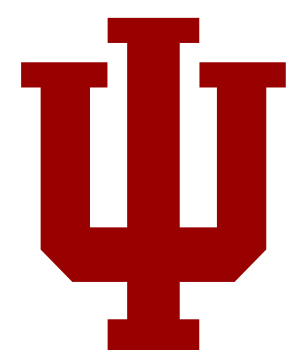
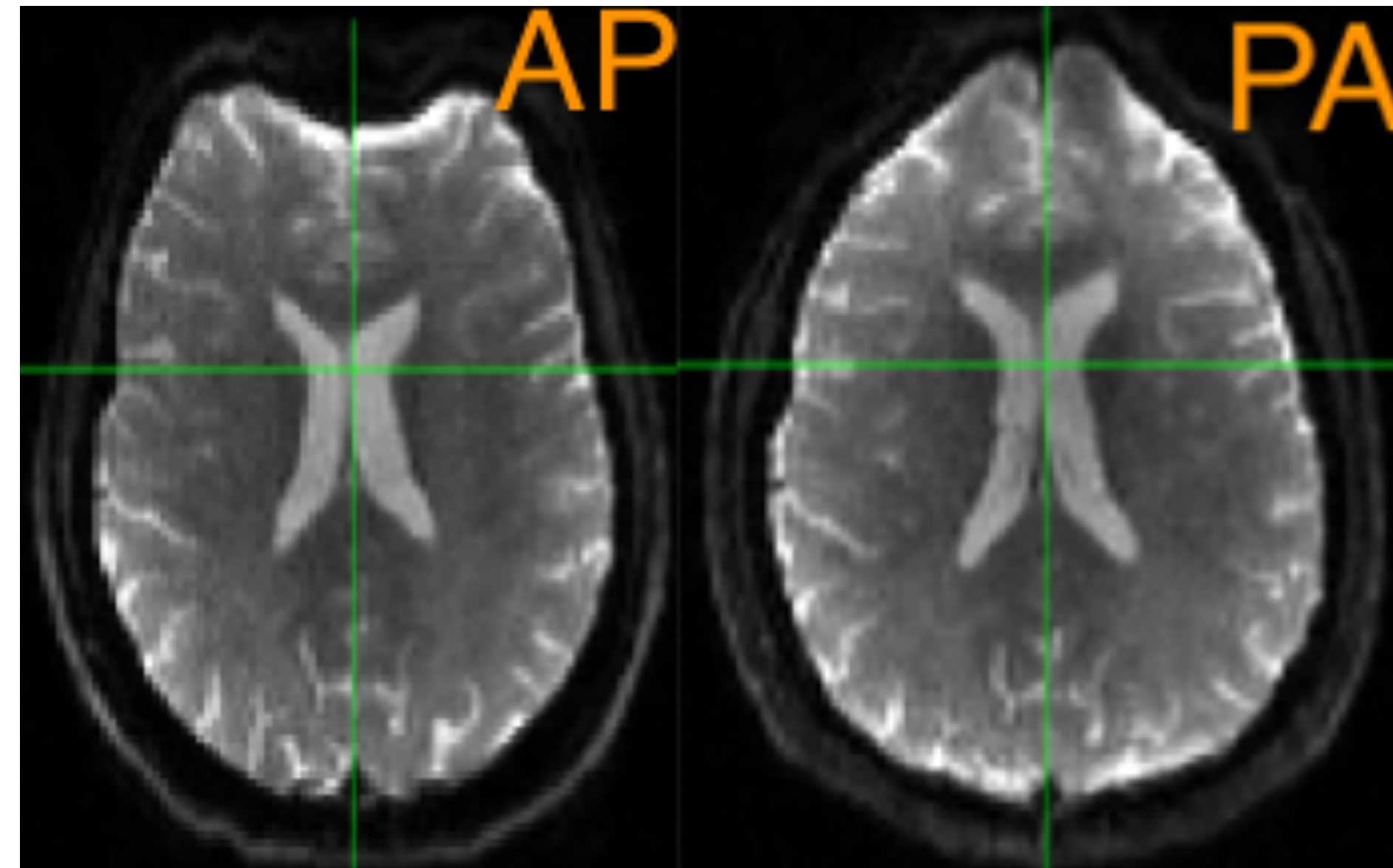


# OSTRICH APPROACH?





# FAR REACHING EFFECTS



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## EPI susceptibility correction introduces significant differences far from local areas of high distortion

John P. Begnoche<sup>a,\*</sup>, Kurt G. Schilling<sup>b,c</sup>, Brian D. Boyd<sup>a</sup>, Leon Y. Cai<sup>d</sup>, Warren D. Taylor<sup>a</sup>, Bennett A. Landman<sup>a,b,c,d,e</sup>

<sup>a</sup> Center for Cognitive Medicine, Department of Psychiatry and Behavioral Sciences, Vanderbilt University Medical Center, Nashville, TN, USA  
<sup>b</sup> Department of Radiology and Radiological Sciences, Vanderbilt University Medical Center, Nashville, TN, USA  
<sup>c</sup> Vanderbilt University Institute of Imaging Science, Vanderbilt University, Nashville, TN, USA  
<sup>d</sup> Department of Biomedical Engineering, Vanderbilt University, Nashville, TN, USA  
<sup>e</sup> Department of Electrical Engineering and Computer Science, Vanderbilt University, Nashville, TN, USA

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### ABSTRACT

**Purpose:** In echo-planar diffusion-weighted imaging, correcting for susceptibility-induced artifacts typically requires acquiring pairs of images, known as blip-up blip-down acquisitions, to create an undistorted volume as a target to correct distortions that are often focal where regions with differences in magnetic susceptibility interface, such as the frontal and temporal areas. However, blip-up blip-down acquisitions are not always available, and distortion effects may not be specifically localized to such areas, with subtle effects potentially extending throughout the brain. Here, we apply a deep learning technique to generate an undistorted volume to correct susceptibility-induced artifacts and demonstrate implications for image fidelity and diffusion-based inference outside of areas where high focal distortion is present.

