In Reply We read Dr Poletti’s thoughts on our article with great interest. We hoped that the findings in our article about the domain-specific developmental differences within domain-specific neurodegenerative disease would be appreciated for their potential to represent a larger, more generalizable phenomena. With this in mind, we share Dr Poletti’s enthusiasm that this process might relate to psychiatric disease.

With regards to the collection of developmental differences that were obtained retrospectively from a medical record review, we do not dispute the limitations inherent to these methods. However, we also believe in this method’s inherent benefits, which are mainly that it allows for discovery and serves as a launching point for more in-depth investigations. Again, in agreement with Dr Poletti, for future studies we wanted an independent measure of developmental differences so as to not have to rely solely on medical record reviews. As such, for the past 3 to 4 years we have been piloting a self-reported (or when appropriate informant-reported) screening questionnaire targeted at capturing early-life differences in various cohorts, including healthy aging and dementia populations. We expect to introduce this instrument to the public soon and hope that it will obtain wide acceptance, thus providing one means for standardizing collections across different academic and health communities.

In our article, we made a distinction between verbally and visuospatially based developmental differences. There are active debates regarding the relative localizations of these processes. Our analyses and interpretations were based on a literature that supports a left hemispheric association with developmental dyslexia and a right-sided localization for basic nonverbal visuospatial processing. We do not mean to exclude the possibility of more nuanced interactions (such as the reliance of linguistic processes to perform symbolically based mathematics) or the existence of comorbid presentations.

As we have commented in our article, the anatomical and functional correspondence between developmental dyslexia and the logopenic variant of primary progressive aphasia supports an association between phonologically based developmental differences and later-life focal degenerative disease. We do not wish to suggest that all forms of dyslexia require phonological deficits or argue that dyslexia cannot arise from a visual disorder or attentional deficit and apologize to Dr Poletti or any other readers who have interpreted our findings as such. Indeed, we believe that the phenotype of reading disability likely arises from heterogeneous sources (and this would follow for other developmental differences, such as dyscalculia). However, we do hypothesize that given the relative homogeneity of presentation within conditions like logopenic variant primary progressive aphasia, and the association with developmental differences we and others observe, that this clinical population is likely to be enriched in phonologically based forms of developmental dyslexia. As such, we agree with Dr Poletti that further research into these associations is warranted and reiterate that we hope that our article helps to lay the groundwork for future larger-scale investigations.

Zachary A. Miller, MD

Author Affiliation: Memory and Aging Center, University of California, San Francisco, San Francisco.

Corresponding Author: Zachary A. Miller, MD, Memory and Aging Center, University of California, San Francisco, 675 Nelson Rising Ln, Ste 1912, PO Box 1207, San Francisco, CA 94143-1207 (zmiller@memory.ucsf.edu).

Published Online: November 5, 2018. doi:10.1001/jamaneurol.2018.3342

Conflict of Interest Disclosures: None reported.


CORRECTION

Redundant Wording in Results and P Value Discrepancy in Figure 1: In the Brief Report titled “Association of Medication Nonadherence Among Adult Survivors of Stroke After Implementation of the US Affordable Care Act,” published online August 27, 2018, wording in the first sentence of the Results section, “uninsurance decreased (from 13.7%...)” also should have been deleted. In the fourth sentence of the Results section, “and 61.9% were aged 65 years or older” should have been deleted. In Figure 1, the P value given as .001 for comparisons across the 4 rightmost bars should have been P < .001. The article has been corrected online.


Incorrect Affiliation: In the Research Letter titled “Association of Epidermal Stimulation With Cardiovascular Function in an Individual With Spinal Cord Injury,” published online February 19, 2018, Dr Phillips’ affiliation was listed as the International Collaboration on Repair Discoveries at the University of British Columbia, but the correct affiliation is the Department of Physiology and Pharmacology, Hotchkiss Brain Institute, Libin Cardiovascular Institute of Alberta, University of Calgary, Calgary, Alberta, Canada. This article was corrected online.