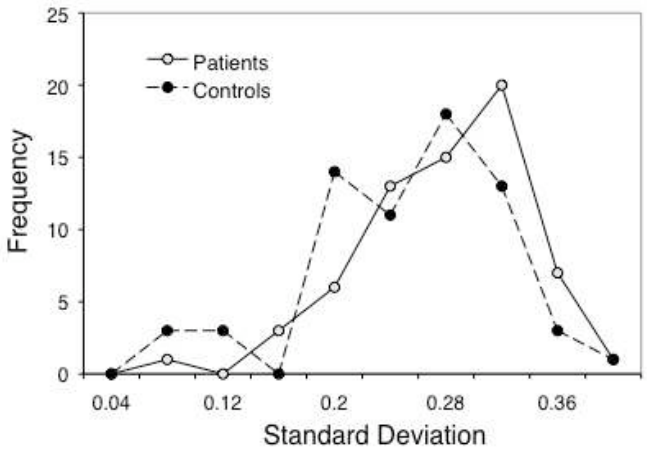
A new dissimilarity measure for finding semantic structure in category fluency data with implications for understanding memory organization in schizophrenia. Correction to Prescott et al. (2006).

On page 693 of "A new dissimilarity measure for finding semantic structure in category fluency data with implications for understanding memory organization in schizophrenia" by Prescott et al. (Neuropsychology, 20(6):685-99) we described an analysis of variability in semantic fluency data that indicated that the semantic organization of patients with schizophrenia, for the category animals, exhibits more variability than that of age-matched controls. One part of that analysis looked at the standard error of the mean cumulative frequency (*mcf*) scores for 66 item pairs. With hindsight[1] the standard error is not the most appropriate measure for comparing variability between groups since it scales inversely with the square root of the sample size. We now recommend the use of the standard deviation for such comparisons. Reanalyzing our data using the standard deviation shows that, consistent with our original conclusion, variability is somewhat greater for patients than for controls (patient mean=0.259, control= 0.233, F= 5.4, p= .022). The figure below reproduces figure 5 from our article but showing frequency distributions for the standard deviation. In our study, a similar number of item pairs were produced by both groups (802 for patients, 809 for controls) thus the use of the standard error did not unduly affect the between-group variability test, however, similar analyses using unequal sample sizes should not use the standard error. Note that the conclusion of greater variability in the patient data was also supported by split-half comparisons using within- and between-group correlations.



Frequency distributions, over sixty-six item pairs, of the *standard deviation* of the *mcf(G,a,b)* measure for patient and control groups. The graph shows the distance estimates obtained from the patient group are more variable than those of controls.

[1] We are grateful to Daniel Pratt for drawing our attention to this issue.