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Invited Letter Rejoinder

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To the editor: how statistics killed the cat: conclusion

We thank Dr Solmi *et al*. for their reply to our letter. We think it is useful to summarize what we agree and do not agree on.

(1) We agree that the study was an attempt to look for an association between cat ownership in childhood and self-reported psychotic-like experiences in adolescence rather than diagnosed schizophrenia.
(2) We agree that the initial univariable result showed a significant (OR 1.23) association between cat ownership at ages 4 and 10 and psychotic-like experiences at age 13.
(3) We agree that when 'relevant confounders', including social class and household crowding, were included in the statistical analysis, the OR decreased to 1.18 and was no longer statistically significant.
(4) We agree that it would be incorrect to include as 'confounders' variables that are on the causal pathway between cat ownership and psychotic experiences since that would dilute the strength of the association.
(5) We do *not* agree on the inclusion of social class and household crowding as 'confounders' in this study since we believe these variables are on the causal pathway. The situation is similar to lead poisoning in childhood. Surveying a large group of children may show a significant association between exposure to lead paint and poisoning. However, lead paint was more commonly used in lower socio-economic housing. Therefore, if one controls for social class as a 'confounder,' the strength of the association will be weakened. Since exposure to the infectious agent which may cause psychotic-like experiences (as measured by proxy by cat ownership) is also more common in the lower socio-economic class, the inclusion of this variable inevitably dilutes the strength of the association. Larger sample sizes allowing for analyses of complex interactions with sufficient statistical power would be useful.

Several ongoing studies of cat ownership and schizophrenia will provide a definitive answer to this question.

E. F. TORREY[1,*] AND R. H. YOLKEN[2]
[1] *Stanley Medical Research Institute, Kensington, MD, USA*
[2] *The Stanley Neurovirology Laboratory, Johns Hopkins University School of Medicine, Baltimore, MD, USA*

*Address for correspondence: E. F. Torrey, M.D., Stanley Medical Research Institute, Kensington, MD, USA.
(Email: torreyf@stanleyresearch.org)