brain volume were lower in our three groups of youths (0.039, 0.026 and 0.034 for liars, antisocial controls and healthy volunteers respectively) than in the corresponding groups of adults reported by Yang *et al* (0.069, 0.054 and 0.054). However, prefrontal white to whole brain ratio, prefrontal white volume, or prefrontal grey/white ratios did not differ between our youth groups ($F(2,19)=1.105$, 0.973 and 0.337 respectively).

We also examined the corpus callosum morphometrically using the method of Casanova *et al* (1990). Since Raine *et al*'s (2003) strongest effect size was seen for corpus callosum volume and limited data were available, we calculated the ratio of corpus callosum area to whole brain volume as a proxy for corpus callosum volume. A trend for ratio differences between the three groups was seen ($F(2,19)=2.748$, $P=0.092$), with the smallest ratios in the liars (0.080), followed by antisocial controls (0.086) and healthy controls (0.091).

Thus, we did not find prefrontal differences in lying youths but did find suggestion of corpus callosum differences. Our results are consistent with the notion that prefrontal findings are not causal, although they may be linked to the maintenance of the symptom of lying and consistent with myelination proceeding rostrally and from the inside (longer connections) outward (short association fibres and arcuate fibres).

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Authors' reply: The findings reported by Kruesi *et al* are intriguing. We showed that adult pathological liars had 22% more prefrontal white matter than normal controls and 26% more than antisocial controls. Based on mean values reported by Kruesi *et al*, they too found higher prefrontal white matter/whole brain volumes in adolescent liars compared with both normal controls (14.7%) and antisocial controls (50%). Their sample of adolescent liars was small ($n=4$) and therefore underpowered for the detection of a true increase in prefrontal white matter. We therefore believe that the results of Kruesi *et al* support our findings rather than refute them. With a larger sample size they may well have found a statistically significant increase in prefrontal white matter in liars. An important difference between the two studies is that the mean age of our adult pathological liars (36.5 years) was more than twice that of the adolescent liars (15.9 years). Since prefrontal white matter may not be fully developed until 30 years of age (Paus *et al*, 2001), there may be insufficient development of prefrontal white matter in adolescents to facilitate pathological lying. Taken together the findings suggest a neurodevelopmental hypothesis whereby individual differences in white matter predispose more to lying in adulthood when neurodevelopment is complete.

A further difference between the studies is that although our pathological liars were matched with controls for IQ, the control group of Kruesi *et al* had a 31 point higher IQ than the liars, which may affect their findings. A further important difference is that we assessed pathological lying in adults, whereas Kruesi *et al* appear to be assessing excessive lying in adolescents. There may be a continuum of lying from normative lying (controls) to excessive lying (the adolescents of Kruesi *et al*) to pathological lying (our adults). Whether prefrontal white matter (or any other brain structure) is related in a neurodevelopmental context to this lying continuum remains to be determined.

Declaration of interest

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Paus, T., Collins, D. L., Evans, G., *et al* (2001) Maturation of white matter in the human brain: A review of magnetic resonance studies. *Brain Research Bulletin*, **54**, 255–266.

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Financial support and conflict of interest

The *Journal* apologises, as does Dr Calton (British Journal of Psychiatry, 2005), for giving the impression that the views expressed by authors were influenced by their occasional support from pharmaceutical companies. Your column (Tyrer, 2005) comments that assuming that such support necessarily creates a conflict of interest is 'sometimes' unwarranted. I am sure that it would be of great interest to readers to know how you judge when such an assumption is warranted. Does it depend on how often you receive support? Or on the financial value of such support? Or on some multiplication of both? Or on the obviousness of the relationship between the support and the views expressed? We must be told.

Declaration of interest

A.J.D.M. received direct support for attending conferences and meetings until 2001 from Pfizer UK and from other companies. He cannot recall ever attending a major academic meeting that was not heavily sponsored by industry. He works with user and carer charities which also receive such support. He attends lunchtime meetings at which food is never available from any other source, and uses a USB memory stick provided by Eli Lilly UK.

British Journal of Psychiatry (2005) Apology. *British Journal of Psychiatry*, **187**, 390.

Tyrer, P. (2005) From the Editor's Desk. *British Journal of Psychiatry*, **187**, 394.

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Editor's reply: The declaration of interest attached to Professor Mcdonald's letter is

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a clear answer to his question. It is almost impossible to exist as a medical practitioner without receiving support from one organisation or another at some point in your duties, but most of the time this is quite irrelevant to a piece of published information. The declaration of interest may need to be defined more specifically in our instructions but at present we are inclined towards the views of the *BMJ* in identifying those interests which are competing as those which should be declared. The *BMJ* defines a competing interest as one that 'exists when professional judgment concerning a primary interest (such as patients' welfare or the validity of research) may be influenced by a secondary interest (such as financial gain or personal rivalry)' (http://www.bmj.com). This properly identifies the element that might, wittingly or unwittingly, create a bias in the written material that is submitted. In most instances the interest declared will be a financial one, but I would welcome more of the personal rivalry interests that are highly relevant in academic circles. Although not expecting 'I am a visceral opponent of Dr X's work and cannot bear to be in the same room as him/her', I think 'I have a general bias against Dr X because I do not think he/she has the clinical experience to pronounce on these matters, whereas I have', might not be out of place in an open and honest exchange of views.

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One hundred years ago

Fragment of the History of a Case of Hysteria. [Bruchstück einer Hysterie-Analyse]. (Monatsschr. f. Psychiatrie u. Neurolog., Bd. xviii, Heft. 4, 1905.) Freud, S.

The volume of *Studies of Hysteria* which Professor Freud published in conjunction with Dr. Breuer some ten years ago aroused much controversy, but even many of those who were by no means prepared to accept its teaching at every point could not fail to recognise that it was an epoch-marking book in the history of hysteria. In method it introduced a refined and penetrating psychic analysis which had never before been known, and in theory it brought back in a more acceptable form the conception of the large part played in hysteria by the sexual emotions, which, under the influence of Charcot, had been too absolutely rejected.

While Freud's method and theory remain substantially the same, he has very considerably developed the technique of his analytical process. He has abandoned the use of hypnosis as a method of investigation, and attaches still more importance than before to what may be called "symbolic manifestations" of the psychic condition. He seeks to obtain a complete and sympathetic knowledge of the patient's outer and inner life, and to interpret the data thus obtained by means of clues which often seem of the slightest character. It is obvious that such a method must be carried out in an extremely elaborate manner to be in any degree convincing. Even the present fragment of a history, which might easily be dismissed as a quite ordinary case of hysteria, covers nearly a hundred pages, and though it really reveals itself as an exceedingly complex and many-sided history, which, under the investigator's hands, slowly falls into order, there is still much that a cautious and critical reader is inclined to view with suspicion, notably as regards the interpretation of dreams (a subject to which of recent years Freud has devoted special study); even here, however, the clues often prove such excellent guides that one hesitates to condemn them on account of their extreme tenuity. It should be remarked that Freud now attaches very great importance to dreams in the interpretation, not only of hysteria, but of all allied psycho-neurotic conditions; without a study of dream-life, indeed, he believes we can make very little progress in this field. It is necessary, however, to pay close attention to all the automatic and involuntary manifestations of the psychic and physical organism. "He who has eyes to see and ears to hear becomes convinced that no mortal can hide his secret. He whose lips are silent chatters with his finger-tips and betrays himself through all his pores. That is how it is that the task of bringing even the most hidden regions of the soul to consciousness becomes quite possible."

It is impossible to analyse this analysis, but by many readers its study will be found highly fascinating and profitable. There are other readers for whom it will seem unsatisfactory, trivial, and unwholesome. Of this type of mind was the little girl who criticised the operations of the Divine mind with the remark that it "must be fiddling work making flies." People of this mental type cannot, however, be advised to study hysteria.

HAVELOCK ELLIS.

REFERENCE

Journal of Mental Science, April 1906, 406–407.

Researched by Henry Rollin, Emeritus Consultant Psychiatrist, Horton Hospital, Epsom, Surrey

Corrigenda

Specialised care for early psychosis: symptoms, social functioning and patient satisfaction. Randomised controlled trial. *BJP*, **188**, 37–45. The seventh author's name is Jason Read. The online version of this article has been corrected post-publication in deviation from print and in accordance with this correction.

Going to war always hurts (letter). *BJP*, **188**, 83. The signatories to the 'Authors' response' should include N. Greenberg, King's Centre for Military Health Research, London, UK.

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