work more efficiently than men's. Also, isn't it possible that the difference in brain size (if any) is the result of generations and generations of oppression of women by men? Has either Rushton or Ankney considered other reasons (or all the other possible reasons for that matter) for brain size difference that may be just as statistically significant as that from gender alone? What every experiment needs is a control. For the brain size/IQ debate, this appears impossible and thus Rushton's and Ankney's conclusions are without merit.

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SIR - Professor J. Phillippe Rushton offers an analysis of the cranial capacities of the several ethnic groups recruited by the US Army, with an additional comparison between those of men and women. John Maddox1 has been rightly sarcastic about the biases implicit in Rushton's study: if ethnic differences exist, are they based upon neurological factors that have never been examined? How tightly are neurons packed within brains? Are differences of myelination involved? In the context of intelligence (whatever that may mean), how do the relevant neural networks function, anyway? For serious neuroscientists, much is uncertain. On a sociological front, how are men of diverse ethnic origin recruited by armies in the first place? What personal needs drive them?

Rushton's enormous study seems to have been based on anthropometric data gathered to help contractors to the US Army to provide a range of helmets. Should we take it seriously? Surely not.

Were it possible to accept Rushton's efforts as methodologically sound, we could leave him alone to get on with it. Alas, his record is not impeccable.

In his paper<sup>12</sup> "Genetic similarity in male friendships", he used data derived from application of a test of 'conservatism' invented in England in the late 1960s by G. D. Wilson and J. R. Patterson<sup>13</sup>This farrago devised for the

British *milieu* of the period was transferred to Canada. To what were Rushton's harmless subjects asked to respond? A small sample will suffice: Self-denial, evolution theory, school uniform, hippies, sabbath observance, patriotism, modern art, colonial immigration, Bible truth, pajama parties, inborn conscience.

Surely, enough is enough.

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## Anal sex

SIR — John Maddox (Nature 358, 13; 1992) criticized The Sunday Times for reporting that the Birmingham haemophiliac who infected four women with human immunodeficiency virus (HIV) had had anal intercourse with at least three of them. Neville Hodgkinson in his reply (358, 447; 1992) asked "Why is a journal dedicated to science so afraid of facts?"

I would like to put the same quesion not only to *Nature*, but also to those involved in AIDS research, and especially to those responsible for the information to the public about risk factors in heterosexual transmission of HIV. The reason is as follows.

Maddox pointed out that the extra hazard of anal intercourse is not novel. That is true. It has been known for at least seven years within the AIDS scientific community. But is it also well-known outside this community? I doubt it. At least in Sweden I have never seen government sponsored campaign indicating that anal sex is risky sexual behaviour.

Maddox refers to a report published by the European Study Group on Heterosexual Transmission of HIV (*British Medical Journal* 304, 811; 1992). In that report, the relative risk of HIV transmission from men to women is increased by a factor of 5.1 in anal intercourse, compared to vaginal intercourse.

What does this relative risk factor mean in practice? Raw data show that 46 per cent of women who had had anal intercourse with HIV-infected men became HIV-positive. This is most alarming to me (and probably to most other people) but not for the European Study Group. They conclude that this high-risk sexual practice (anal sex) was not essential for transmission as 40 out of the 82 infected women never practised anal sex (the other 42 did). Evidently they prefer to talk about relative risks obtained by complex statistical methods and miss or hide the most important message from facts.

A major conclusion from the report in

question should be that a dominant risk for transmitting HIV from an infected man to a woman is to practise anal sex. This is also supported by common sense (which sometimes is of value also in science). Male homosexuals frequently practise anal sex. Everybody knows about the high frequency of HIV transmission within that group.

That anal sex is practised by the heterosexual and bisexual population has to be recognized by society. In the two study groups in the report, the frequency was 23.7–31.8 per cent which is in accordance with results from the Stockholm area. Thus scientists dealing with AIDS research and people, organizations and media responsible for giving information and advice on AIDS protection have a duty to ensure that the following facts are clearly stated to the public: (1) anal sex is practised by many heterosexuals and bisexuals; and (2) anal sex is relatively more dangerous.

This information is especially important for women, because they are the main victims.

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# Sex and gender

SIR — According to Fowler's *Modern English Usage* (Oxford University Press, 2nd edn 1965, revised 1983), "GENDER n. is a grammatical term only. To talk of persons or creatures of the masculine or feminine g., meaning of the male of female sex, is either a jocularity (permissible or not according to context) or a blunder."

For reasons of political correctness rather than biological delicacy, however, the nonjocular use of gender as a euphemism for sex seems now to be getting established. Whether this really serves any useful purpose for human sex is perhaps arguable, but its application to nonhuman animals should surely be resisted.

An example appears in *Nature* **358**, 704 (1992), on the recovery of an enormous fossil of the ornithischian dinosaur *Stegosaurus*, found recently in Colorado. This has much larger back plates than in another specimen near by, "which may suggest that plate size is an indication of gender, and that the specimen is male".

But according to the rules of zoological nomenclature, and of Latin grammar, the *gender* of the name *Stegosaurus* must be masculine. It is the sex of this particular specimen, whether male or female, which is in question.

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<sup>1.</sup> Maddox, J. Nature 358, 187 (1992).

<sup>2.</sup> Rushton, J. P. Nature 358, 532 (1992).

<sup>3.</sup> Ankney, C. D. *Nature* **358**, 532 (1992)

Ho, K., Roessmann, U., Straumfjord, J. V. & Monroe, G. Arch. Pathol. Lab. Med. 104, 635 (1980).

Ho, K., Roessmann, U., Straumfjord, J. V. & Monroe, G. Arch. Pathol. Lab. Med. 104, 640 (1980).

<sup>6.</sup> Ankney, C. D. Intelligence 16, 329 (1992).

Strauss, S. Globe and Mail, Toronto (15 August 1992).
Freedman, D., Pisani, R., & Purves, R. Statistics (Norton, New York, 1978).

Flynn, J. R. Race, IQ and Jensen (Routledge and Kegan Paul, London, 1980).
Beals, K. L., Smith, C. L. & Dodd, S. M. Curr. Anthrop.

 <sup>301–330 (1984).</sup>Warnock, M. in Wollstonecraft, M. A Vindication of the Rights of Women & Mill, J. S. The Subjection of Women

<sup>(</sup>Dent, London, 1985). 12. Ethol. Sociobiol. **10**, 361–374 (1989).

<sup>13.</sup> Br. J. clin. Psych. 7, 264-269 (1968)