the M negative twin pairs had a greater environmental source of variance operating than M positive pairs.²

The advent of gene probes to detect DNA polymorphic variation (gene deletions, mutations, and so on) will permit the twin method to explore the quantitative aspects of gene-environment interaction in great detail. Although there has been criticism of relying on the use of the twin method alone in studying behaviour,¹ these criticisms are probably not as valid in medical research where physical and chemical measurements are being made.

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¹ Henderson ND. Human behaviour genetics. *Annu Rev Psychol* 1982;**33**: 403-40.

² Anonymous. Fourth international congress on twin studies. *Acta Medicae et Gemellologiae/Twin Research* (in press).

³ Tattersall RB, Pyke DA. Diabetes in identical twins. *Lancet* 1972;ii: 1120-5.

⁴ Pyke DA. Twin studies in diabetes. In: Nance WE, ed. *Twin research: clinical studies*. Vol 24C. New York: Alan Liss, 1978.

⁵ Eysenck HJ. *The causes and effects of smoking*. London: Maurice Temple Smith Ltd, 1980.

⁶ Gurling HMD. Review of the "Causes and effects of smoking," Eysenck, HJ. Temple Smith, London, 1980. *Br J Addict* 1981;**76**:325-7.

⁷ Cederlof R, Friberg L, Lyndman T. The interactions of smoking, environment and heredity and their implications for disease etiology. *Acta Med Scand* 1977;suppl 612:7-128.

⁸ Heller RF. Type A behaviour and coronary heart disease. *Br Med J* 1979;ii:368.

⁹ Gurling HMD, Clifford CA, Murray RM. Investigations into the genetics of alcohol dependence and into its effects on brain function. In: Gedda L, Parisi P, Nance WE, eds. *Twin research 3: epidemiological and clinical studies*. Vol 69C. New York: Alan Liss Inc, 1981:77-87.

¹⁰ Kaij L. *Alcoholism in twins*. Stockholm: Almqvist and Wiksell, 1960.

¹¹ Rose RJ, Fulker DW, Miller JZ, Grim CE, Christian JC. Heritability of systolic blood pressure: analysis of variance in MZ twin parents and their children. *Acta Genet Med Gemellol (Rome)* 1980;**29**:143-9.

Eye banking

About 1200 corneal grafts are performed each year in Britain and the success rate is very high. Nevertheless, it might be even better if more suitable (younger) donor material were available. Many more operations could be undertaken if the supply of corneas were more plentiful. In some centres blind patients in need of a graft may have to wait for two years—a state of affairs that could easily be rectified by simple administrative changes and in particular by more cooperation from hospital doctors.

It is, perhaps, a criticism of how ophthalmology is taught that so few house officers think of eye donations even when they ask permission to use kidneys. There can be little excuse for consultants who refuse permission for relatives to be interviewed because they might be upset. People are extremely

generous even after bereavement in the saddest of circumstances, and in fact they often write to say how proud they are to have offered the gift of sight. The other "culprits" are some hospital administrators who arbitrarily refuse to cooperate. More help would also be welcome from coroners.

Who are the "goodies"? They are mostly non-medical people who are enthusiastic that sight should be restored whenever possible by corneal grafting. They often have unromantic titles such as death clerks, mortuary attendants, coroners' clerks (policemen), and undertakers. Alas, there is often a delay of several hours before notification of death, and many of the donors are in their 80s (with a correspondingly limited population of endothelial cells).

The Archbishop of Canterbury has recently inaugurated the UK Corneal Transplant Service, and we can now hope that this computerised service will increase the number and quality of donor eyes for corneal grafting.

The new service, based in Bristol and sponsored by the Iris Research Fund, aims at increasing the supply of donor eyes by more publicity. Corneal surgeons remember the extraordinary increase in voluntary donations after the news of Lady Churchill's bequest—though they have less happy memories of the BBC's *Panorama* programme on brain death.

There is one major source that is often overlooked—namely, kidney donors, of whom there were over 500 in 1982. Very few of their corneas were transplanted. We can only hope that renal surgeons will cooperate more readily and that hospital doctors will be constantly reminded that more than one organ can be used from a donor. Kidney donors are particularly suitable because of their youth and the short interval between death and the removal of organs. Another distinct advantage is that most are typed for HLA-A, B, and DR and the corneas they donate may be used for tissue matched grafts. The most common cause of failure in corneal grafts is rejection, the risk of which is very high in vascularised corneas; indeed, in Britain about 1000 potentially useful corneas are wasted each year.

With the new computerised service and more cooperation from doctors, corneal transplantation should soon be performed regularly as an elective operation, as happens in some parts of the United States and Holland. Furthermore, an enlightened society such as ours should always seek to extend help to developing countries, where for social, religious, and economic reasons donor material may not be available. Donor eye cards and details of donations may be obtained from the Iris Fund, York House, 199 Westminster Bridge Road, London SE1 7UT; tel 01-928 7743. When corneas and kidneys become available for transplantation the UK Transplant Service should be contacted immediately on 0272 507777.

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