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Letters

Visual and emotional health

There is an interesting corollary to your report of Flach and Kaplan's finding of grossly high incidence of visual defects among the mentally ill (SN: 8/20/83, p. 126). If we could correct all cases of visual defects before they had much chance to create emotional problems, we would reduce the incidence of mental illness.

Those who have not lived through years of an uncorrected visual defect cannot imagine the damage it can do. In sports you are a boob, an all-round failure, the player neither team wants. ... In school you are judged dumb because you read the fuzzy writing on the blackboard haltingly and with much error if you can read it at all. In social situations you cannot read faces either to recognize people or to see nonverbal responses. The poor-sighted can carry a heavy burden of failures, reproaches and poor ability to participate. Glasses help, of course, but they do not bring back lost development opportu-

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Cover: Translucent, thin sections of coal, observed under a microscope, show striking natural colors. In one example, the cellular structure of woody tissue is clearly visible, while the other sample reveals traces of spores (yellow) and other plant material (reddish). At the molecular level, however, coal's structure is poorly understood, partly because the composition of coal can vary greatly. (Photos: Bureau of Mines)



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Brain power and evolution

The article about Wilson, Kunkel and Wyles ("The brain's behind evolution's drive," SN: 8/13/83, p. 101), reminded me of an earlier theoretical work which might help further develop these ideas. Lancelot Law Whyte, in his "Internal Factors in Evolution" (Braziller, 1965), summarizes his argument thus: "1. Organisms are highly coordinated structures. 2. Only certain avenues of change are compatible with their conditions of coordination. 3. The formative and selective action of these internal conditions is theoretically and empirically different from that of Darwinian selection. 4. Mutations in the mode of coordination of the genetic system lie outside the scope of the classical arguments purporting to show that natural selection is the only directive agency. 5. The coordinative conditions constitute a second directive agency."

Considering behavior as an internal factor may allow Whyte's systematic perspective, conclusions, and questions to enrich this debate.

E. Todd Waymon
Silver Spring, Md.

nity nor do they automatically cancel habits developed in response to visual problems. It comes as no surprise that visual defect is a major, likely causative factor in mental illness.

Volney Wallace
Dugway, Utah

Methane economy

I disagree with a conclusion expressed by Messrs. Stevens and Brodie in regard to farmers purchasing methane digesters for generating electricity ("Dung power and milk-warmed water," SN: 7/30/83, p. 74).

They stated that if 10 years of energy savings were less than the cost of the equipment then it would not make "economic sense." This analysis fails to include the capital value of the purchased equipment. If the annual energy savings divided by cost of the purchased equipment is greater than the farmer's average return on investment, then the purchase would make sense.

Allen Arata
Hawthorne, Calif.

SEPTEMBER 17, 1983

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