

BRIEF COMMUNICATION

‘Smoking, personality and reasons for smoking’: a reply to Eysenck

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SYNOPSIS A study is reported in which smokers are shown to have higher psychoticism scores than non-smokers. This result is discussed in the context of the comments made by Eysenck (1983) on an earlier paper of ours (McManus & Weeks, 1982).

Eysenck (1983) has recently commented on a paper of ours (McManus & Weeks, 1982) in which we suggested that smoking behaviour correlated not with extraversion, as Eysenck's theory of smoking had previously suggested, but rather with psychoticism. The suggestion was made that this change in correlation pattern might well be due to a change in the structure of the Eysencks' personality assessment instruments, the earlier Eysenck Personality Inventory (EPI) which assessed extraversion (E), Neuroticism (N) and Lie (L) scales, and the later Eysenck Personality Questionnaire (EPQ) which, in addition to E, N, and L scales, also assessed psychoticism (P). We suggested on the basis of an analysis of the scoring of items in the EPI and the EPQ that we would expect EPI E to correlate with EPQ P, in view of the overlap of questions. While our paper was in press we received support for this view from the work of Rocklin & Revelle (1981), who found exactly such a correlation, and since publication we have become aware of the work of Pearson (1979), who found a similar result.

Eysenck, in his comments on our paper, suggests that despite 'the changed contents of the [EPQ extraversion] scale, which has been changed from earlier versions, such as the... EPI, by the omission of some impulsiveness items' (p. 447) that, on the basis of the study of Spielberger & Jacobs (1983), 'extraversion, even in the form of the new scale on the EPQ,

nevertheless retains its correlation with smoking behaviour' (p. 447). This we find surprising given that in their book, *The Causes and Effects of Smoking*, Eysenck & Eaves (1980) conclude that 'Smoking is associated with higher scores on Eysenck's P scale and with low scores on the lie scale of the EPQ' (p. 310).

In our previous paper we were interested only in differences in personality *within* smokers (i.e. between heavy and light smokers), and not *between* smokers and non-smokers (a point ignored by Eysenck (1983), although Eysenck & Eaves (1980, p. 289) note that entirely different answers could be obtained for the two types of question and, earlier (1980, p. 235), they had concluded that 'non-smokers are differentiated genetically from smokers along quite a distinct dimension from that which discriminates between the different degrees of cigarette consumption among smokers'). Here I shall briefly report results on differences in personality *between* smokers and non-smokers. All interviewees at St Mary's Hospital Medical School during the winter of 1980–1 completed a series of questionnaires including the EPQ and a smoking questionnaire. Since the majority of applicants were of school-leaving age, the incidence of smoking was relatively low at 9.1%; elsewhere we have shown that even in their first pre-clinical year medical students have a lower incidence of smoking than non-medical students (McManus *et al.* 1978). Nevertheless, it is clear from the EPQ results (Table 1) that we continue to find a similar pattern of results to that in our previous study, and to that of Eysenck & Eaves (1980),

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Table 1. *The mean scores of medical students on the four items of the Eysenck Personality Questionnaire, as a function of self-classification as a smoker or non-smoker, as well as a t-test with 316 df for the significance of the difference between those means*

	Smokers	Non-smokers	Significance
Number	29 (9.12%)	289 (91.88%)	
Extraversion	15.90	15.25	$t = +0.92$, NS
Neuroticism	10.21	9.25	$t = +1.06$, NS
Psychoticism	4.38	2.09	$t = +5.76$, $P < 0.001$
Lie	4.86	7.26	$t = -3.17$, $P < 0.01$

with smokers having higher P scores and also somewhat lower L scores than non-smokers.

We would therefore hold to our original contention that smoking now correlates with P rather than with E, at least as assessed by the EPQ. We would accept Eysenck's (1983) argument that the social correlates of smoking may well have changed since the original reports of 1960. Nevertheless, we would suggest that the detection of such change is hardly likely to be simplified if the measuring instruments themselves are changing *pari passu*. We would suggest that extraversion itself *has* changed between the EPI and the EPQ, and that that change is not clear from the manual for the EPQ (Eysenck & Eysenck, 1975); as Pearson (1979) put it, 'If extraversion is not what it used to be, have the public been informed?'

We would also regret the change in Eysenck's theorizing from a *causal* model of smoking, in which 'stimulus hunger' (Eysenck, 1965; Eysenck & Eaves, 1980, p. 95) as a result of individual differences in cortical physiology directly determined smoking behaviour, to a vaguer *correlational* model in which 'social disapproval might attract P scorers', with the direction of causation being left open. Eysenck's original model simultaneously explained the relationships between E and smoking, alcohol consumption, and tea/coffee drinking (as well as a number of other variables) in a single theory. Since our 1982

paper suggested that these three forms of consumption all had different patterns of correlation with E and P it would not now seem tenable for a single theory to encompass them all, and *ad hoc* theories must once more be resorted to.

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