### Dear Sir/Madam

We are giving a press conference on Wednesday 10 December 1980 at 12 noon at which Professor H. J. Eysenck will speak about his forthcoming book THE CAUSES AND EFFECTS OF SMOKING, to be published the following day (11 December).

The book contains some extremely interesting and controversial material, questioning the generally accepted idea that smoking causes various diseases. In Professor Eysenck's view, this belief may be far less well-founded than is usually supposed and may be blocking research in other fruitful areas.

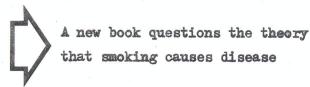
The Press Conference will be held in Committee Room No. 1 at the Institute of Education, Bedford Way, London, WC1. I hope you will be represented at the conference. Will you let us know if you wish to attend or send someone?

Yours sincerely

Memple Smith

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PRESS RELEASE: Embargo Thursday 11 December 1980



In a new book published today, THE CAUSES AND EFFECTS OF SMOKING, the controversial psychologist, Professor H. J. Eysenck, claims that the conventional belief that smoking directly causes lung cancer and cardio-vascular disease is based on very shaky reasoning. By accepting the argument as closed, he believes, we may be neglecting lines of research that could prove important in understanding the diseases concerned.

## Reasons for doubt

An examination of the existing literature on the relationship between cigarette smoking and the two major disorders often linked with it, lung cancer and cardiovascular disease, reveals very serious weaknesses in the methodology used in most of the studies in question, similar weaknesses in the statistical treatment of the data, and the elaboration of very doubtful conclusions on the basis of erroneous premises. The conclusion arrived at is that the evidence is not sufficient to demonstrate the causal effects of cigarette smoking on lung cancer or cardiovascular disease, except among people who are already predisposed to these diseases.

Among the general reasons for being very suspicious of the establishment view are the following. The statistical methods used in these studies have been severely criticised by many statisticians, and defended by few. Among the major errors involved is the fallacy of interpreting observed correlations (such as that between smoking and lung cancer) as causal. The fact that A and B go toether does not prove that A causes B.

#### Smoking as a CURE for disease?

If we accept the type of argument used to prove that smoking causes some diseases, we ought in logic to believe (what nobody does) that it prevents or cures others. People who smoke are statistically less likely to get cancer of the rectum, or primary central nervous system neeplasm, or Parkinson's disease.

As far as cardiovascular disease is concerned, it has been found that pipe or cigar smokers have a lower death rate than non-smokers; does this suggest that this type of smoking protects against coronary disease? No relationships between smoking and heart disease have been found in Finland, Holland, Yugoslavia, Italy, Greece and Japan. Even in countries where a relationship exists, it is often found that moderate smokers die less frequently of heart disease than do non-smokers, and that only heavy

smokers die more frequently. Does this suggest that everyone should smoke moderately in order to be protected from heart disease?

Last but not least, one usually expects a sensible dose-response relationship when causal relations are involved; in other words, larger amounts of smoking should lead to a greater likelihood of disease. Such dose-response relationships are not observed in relation to smoking and lung cancer and heart disease, as many people have demonstrated.

#### Failures of evidence

There are many more specific failures of the evidence to support the thesis that cigarette smoking leads to lung cancer and heart disease. Thus for instance one would suspect that smokers who inhale should be in much greater danger than smokers who do not inhale, as far as lung cancer is concerned; this does not seem to be so, but if anything the relationship is inverse!

The increase in lung cancer for women, which is often suggested to be due to their taking up smoking more recently than men, and which is therefore correspondingly later than the increase in the lung cancer rate for many men, takes a form which is incompatible with this hypothesis, relative increases and decreases occurring at the same time in both sexes, rather than being delayed for females.

The difficulties are increased by the very unreliable diagnosis of lung cancer, so that we do not even know whether there has been any significant increase over the years; studies near the turn of the century, comparing diagnosis with post mortem, suggested that our of 100 people who died of lung cancer as shown by the post mortem, only 4 were so diagnosed on the death certificate! Nowadays probably the opposite error occurs; persons who smoked are erroneously diagnosed as having died of lung cancer.

The major fallacy lies in singling out one influence from a number of correlated influences, and making it responsible for what may be the effects of the whole complex.

## Alternative explanations

The book explores an alternative hypothesis (without losing sight of the fact that both theories might be valid), namely that certain types of pecple are genetically predisposed to moke, and also to suffer certain types of disease, so that the correlation between smoking and disease might be produced by this third variable. (We know, for a start, that smoking, drinking and the generally extraverted lifestyle show quite high correlations.)

The data, as far as they exist, support such a hypothesis, but

unfortunately very little effort has been put into the investigation of this theory to make it possible to arrive at any very strong conclusions, other than that there is little evidence against it, and much in favour of it.

#### Conclusion

There are too many inconsistencies, downright errors, and unsupported conclusions in the research to make it possible to accept the suggestion as proven that cigarette smoking in a meaningful sense causes lung cancer or cardiovascular disease, and such statements as that so many thousand lives could be saved per year if everyone gave up smoking are obviously meaningless in a scientific sense.

It would certainly seem quite premature to argue as if the causal influence of cigarette smoking on lung cancer and cardiovascular disease had been proven beyond any doubt. It would be irresponsible to say that the possibility of such a direct causal relationship did not exist; it is simply suggested that the evidence at present available is quite insufficient to enable one to accept the hypothesis as proven.

THE AUTHOR H. J. EYSENCK is Professor of Psychology at the London University Institute of Psychiatry. He is the author of a number of successful (and often controversial) books.

Dr L. J. EAVES, who has made contributions to the statistical sections of the book, is Lecturer in Psychology at Oxford University.

THE CASUES AND EFFECTS OF SMOKING by H. J. Eysenck Published on 11 December 1980 at £16.50 by Maurice Temple Smith Ltd 37 Great Russell Street, London WC1 Telephone 01-636 9810