

THE PREDICTION OF DEATH FROM CANCER
BY MEANS OF PERSONALITY/STRESS QUESTIONNAIRE:
TOO GOOD TO BE TRUE?¹

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Summary.—Recent work by Grossarth-Maticek and Eysenck has suggested that there are personality traits which in combination can predict cancer in healthy probands with 81% accuracy. Many critics have considered this result “too good to be true.” It is shown that earlier studies have given results not very different in accuracy, suggesting that such a criticism is unwarranted.

There is a long-standing theory asserting the existence of a cancer-prone personality, the main contributing traits being (1) inability to express emotions and consequent suppression of such emotions, and (2) inability to cope with stress, leading to feelings of hopelessness, helplessness, and giving up (Eysenck, 1985). Research in recent years has produced much support for such a view of the cancer-prone personality (Baltrusch, Stangel, & Waltz, 1988), and Grossarth-Maticek, Eysenck, and Vetter (1988) have published results from three large-scale prospective studies showing that interviewer-administered stress/personality questionnaires could predict cancer mortality in originally healthy probands during the succeeding 10 years with 81% accuracy. Table 1 shows the combined results of the three studies, individual values varying from 70% to 88%.

TABLE 1
COMBINED FREQUENCIES FROM THREE PROSPECTIVE STUDIES THROUGH
ASSESSMENT ON STRESS/PERSONALITY QUESTIONNAIRE

Actual	Predicted		Σ
	Cancer	No Cancer	
Cancer	347	49	396
No Cancer	554	2,287	2,841
Σ	901	2,336	3,237

These results have sometimes been said to be “too good to be true,” but, comparing them with previously reported studies, this does not seem to be correct. Consider two seminal studies published at the beginning of the period when interest was taken in the scientific study of the cancer-prone personality. Each was concerned with only one of the two traits jointly mak-

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ing up the cancer-prone personality. The first (Kissen & Eysenck, 1962; Kissen, 1964) looked only at suppression of emotion, using a questionnaire on undiagnosed patients in a chest clinic, of whom about half were later diagnosed as suffering from lung cancer, while the others suffered from some benign disease, a predictive accuracy of 59% was achieved (Table 2).

TABLE 2
COMBINED FREQUENCIES FROM TWO STUDIES OF UNDIAGNOSED
PATIENTS THROUGH ASSESSMENT OF TWO TRAITS

Actual	Predicted		Σ
	Cancer	No Cancer	
Cancer	112	97	209
No Cancer	62	116	178
Σ	174	213	387

Several years later, Schmale and Iker (1971) published a similar paper, dealing with the diagnosis of cervical cancer through interviewers' assessments of feelings of hopelessness. Analysis showed a 74% accuracy as shown in Table 3. Note that Schmale and Iker (1971) found no differences using the MMPI or a projective technique; apparently diagnostic instruments have to be highly specific and related to the theory described to give positive results. It is the frequency of negative results stemming from the use of inappropriate routinely administered instruments which has given rise to the notion that strongly positive results are "too good to be true."

TABLE 3
FREQUENCIES OF DAIGNOSED CERVICAL CANCER THROUGH
ASSESSMENT OF FEELINGS OF HOPELESSNESS

Actual	Predicted		Σ
	Cancer	No Cancer	
Cancer	19	9	28
No Cancer	9	31	40
Σ	28	40	68

If we could simply add the predictive probabilities of the two measures used by Kissen and Eysenck and by Schmale and Iker, we would have a predictive accuracy of 83%, the results being 9% and 24% above the chance level for each. This would compare with our own results of 81%. Of course, the different investigations vary in too many respects to make this possible, but our own data have shown that the two traits of inability to express emotions and hopelessness as a consequence of inability to cope with stress make independent contributions to the prediction of cancer mortality (Eysenck, 1988). In any case, the order of magnitude of predictive accuracies is in

good agreement, suggesting that, if a proper theory is used, positive results are likely to follow. For a detailed discussion of this issue in measurement when summarizing literature, see Meehl (1990). Failure of studies based on different theories and using irrelevant questionnaires should not be construed as criticisms of the theory here suggested (Fox, 1983).

REFERENCES

- BALTRUSCH, H., STANGEL, W., & WALTZ, M. Cancer from the behavioral perspective: the Type C pattern. *Actas Nervosa Superior*, 1988, 30, 18-20.
- EYSENCK, H. J. Personality, cancer and cardiovascular disease: a causal analysis. *Personality and Individual Differences*, 1985, 5, 535-557.
- EYSENCK, H. J. The respective importance of personality, cigarette smoking and interaction effects for the genesis of cancer and coronary heart disease. *Personality and Individual Differences*, 1988, 9, 453-464.
- FOX, B. H. Current theory of psychogenic effects on cancer incidence and prognosis. *Journal of Psychosocial Oncology*, 1983, 1, 17-31.
- GROSSARTH-MATICEK, R., EYSENCK, H. J., & VETTER, H. Personality type, smoking habit and their interaction as predictors of cancer and coronary heart disease. *Personality and Individual Differences*, 1988, 9, 479-495.
- KISSEN, D. M. Relationship between lung cancer, cigarette smoking, inhalation and personality. *British Journal of Medical Psychology*, 1964, 37, 203-216.
- KISSEN, D. M., & EYSENCK, H. J. Personality in male lung cancer patients. *Journal of Psychosomatic Research*, 1962, 6, 123-137.
- MEEHL, P. E. Why summaries of research on psychological theories are often uninterpretable. *Psychological Reports*, 1990, 66, 195-244.
- SCHMALE, A. H., & IKER, H. Hopelessness as a predictor of cervical cancer. *Social Sciences & Medicine*, 1971, 5, 95-100.

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