

Individuals' ability to predict their own personality test scores

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Introduction

In Europe, over the last 30 years, there has been much use of psychological in particular personality assessment inventories used in the area of occupational and organisational psychology. This has been particularly pronounced in managerial selection, with several international human resource companies still implementing personality questionnaires in an attempt to identify those specific traits which seem to be associated with occupational success. There has been a reluctance to give up the use of such standardised questionnaires and rely solely on interview procedures for selection, mainly because of the unreliability involved in reliance on subjective evaluation. Other reasons include the high number of job applicants especially in periods of high unemployment (as witnessed currently in Europe), and the high costs in terms of working hours and finance of interviewing procedures (getting candidates to travel large distance with expensive accommodation and selection through professional interviewers) and the need for objective comparative databases (Furnham 1992). More frequently, over the last couple of decades there has been a policy of employing a dual-pronged strategy, that is, utilising semi-structured interviews combined with psychometric tools by 'on-site' honorary personnel consultants.

Moreover, in an era of new information technology and easy access to software programs there would seem to have been a strengthening in the popularity of more comprehensive psychological screening in selection and appraisal procedures. Several reasons have been suggested for this including

- uniform coverage in questioning (few if any areas ever overlooked);
- using software to do initial screening and evaluation is very efficient and economic;
- software can be tailored to pursue specific issues beyond the normal inquiry based upon the individual's responses;
- the client does the data entry, which also saves time for the practitioner/personnel manager and ultimately ensures that it is done;
- all data can be written to the drive for comparison within and between groups, hence facilitating research; and
- software tools can be adapted to the web for efficient use anywhere there is a web connection.

One of the most favoured personality inventories implemented in organisational and industrial settings has been Cattell's 16PF. The popularity of the Sixteen Personality Questionnaire has been its use of a wide range of personality dimensions; 'it is based on the functional measurement previously located in natural personality structures; the measurements are relatable to an organised and integrated body of practice and theoretical knowledge in clinical education and industrial psychology ... The psychometric properties of the scale are well documented as well as the problem of deception. The very fact that the test had been around so long (over 40 years); very shrewdly and aggressively marketed in a variety of countries; and that Cattell himself has been such an active researcher and zealous advocate of the test for so long, all

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have attracted incredible attention' (Furnham 1992, p. 78). Certainly, attempts had been made early to use the questionnaire with many different occupational groups to identify those scales which exhibited higher beta-weightings in the multiple regression formulae for determining the factors influential in occupational success.

We were primarily interested in lay subjects' ability to predict their own personality profile, a topic which had previously been considered by Furnham (1989, 1990). For nearly 25 years various studies have looked at subjects' ability to predict scores. And though they used slightly different methodologies many used the Eysenck scales; EPI (Vingoe 1966; Harrison & McLaughlin 1969; and Gray 1972), EPQ (Furnham & Henderson 1983). However, other well-known scales have been used like the 16PF (Furnham 1989) and the Myers-Briggs (Furnham 1990). The size of the correlations between the actual and estimate score in the various

social class and educational status. Our results showed that the magnitude of the correlation coefficients ranged from 0.04 (Artlessness-Shrewdness) to 0.46 (high and low ergic tension). Each of the 16 correlations were compared with the results from Furnham (1989). Only three of the z-scores were significant but these showed only that Furnham's correlations were larger and more significant than those in this study which themselves were significant. A comparison of whether the two correlations were from different samples (cf. Schwarzer 1989) revealed that the difference was largest for three 16PF scales, F, G and H. The correlations between self- and actual scores on all four primaries which constitute the dimension 'neuroticism' emerged as statistically significant (C 'ego strength'; L 'alexeria'; O 'adequacy' and Q4): Mean correlation for these scales were 0.30). In addition, the correlations yielded for the 4 16PF primary scales which combine to 'extraversion' were significant (A 'sizia'; F 'sober - happy go lucky'; H 'threctia', and Q1 'conservative'). The magnitude of the correlations between the two studies is remarkably similar which indicates that the correlation is about 0.3 between actual and

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studies varied considerably and little replicative work was done. This study used the 16PF because as mentioned it has undergone substantial psychometric assessment during the last few decades and it is a widely applied instrument in diverse settings ranging including occupational and industrial settings. The 16PF also contains the important superfactors of extraversion and neuroticism. Furthermore, a direct comparison could be made between this study and another recent experiment (Furnham 1989). This paper set out to compare the results of this study with that of Furnham (1990) to demonstrate the robustness of these findings.

It was our feeling that one of the reasons why the Sixteen Personality Questionnaire, or for that matter, any other well-recognised personality inventory, is used in personnel selection is that the major dimensions it essentially assesses are the higher order factors of extraversion and neuroticism, which also correspond to those personality attributes which are generally 'decoded' in the interview selection process. We would hypothesise that individuals are themselves fairly accurate in rating themselves (and presumably others) on those scale descriptors associated with sociability (extraversion) and emotionality (neuroticism).

For this purpose, in one of our studies we requested that one hundred senior college students - with an average age of 26 - complete the 16PF Form A. They were homogeneous in terms of age,

reported scores.

What conclusions could we reach from this study? Our results are congruent with Furnham's (1989) findings. He claims that 'concepts like extraversion and neuroticism are part of everyday language, frequently discussed with respect to a variety of settings and social comparisons are often made ... on the other hand, dimensions such as harria-premsia or alexia-protension, whatever their jargon terms, are less discussed and presumably less easy to predict.' Certainly, sub-components of neuroticism (C, L, O and G4) and extraversion (A, F, H and Q2) are those which are estimated best. However, in both studies it seems that subjects were not particularly accurate at estimating their intelligence as measured by the B-scale in the 16PF (correlation coefficients ranged between 0.08-0.19). Presumably this may be accounted for by the

Why are certain personality dimensions easier to predict than others and secondly what implications does this have for personality measurement?

attenuated correlation coefficient that results from a highly homogeneous and intelligent population group. Further work on people's ability to predict their own intelligence sub-scales scores is merited.

The major questions arise from this study. Why are certain personality dimensions easier to predict

