

# 16 PF NEWSLETTER

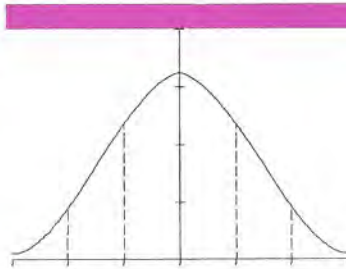
16 FEB 1996

## 16PF FIFTH EDITION

SECOND IN A 4-PART SERIES

### FACTORS M, Q<sub>1</sub>, AND B

by  
Wendy Lord



HIGH SCORERS

In this second part of the series, we will explore the item content of scales M and Q<sub>1</sub>; in the fifth edition, looking at how this has changed in comparison with previous editions. We will also take a look at Factor B.

#### FACTOR M

It is interesting that the mean score for Factor M, on both the general population sample and the managerial sample, has decreased significantly. Furthermore, Managers tend, in the new edition, to score lower than the general population on this Factor which is a reversal. With the fourth edition, managers on average endorse 56% of the high M content while, on the fifth edition the average endorsement is only 36% of the high M content. This change suggests that there is something conceptually different about Factor M.

Clearly, Factor M is tapping into a thinking style on both editions. The core is best described as the degree to which the person focuses on what is present or makes associations beyond it. High scorers focus more on internal associations while low scorers focus more on external reality.

In previous editions this aspect of thinking style has been assessed by asking questions on

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preferences and attitudes that stem from the style of thought. High scorers say they don't find it interesting to talk to habit bound, conventional people. They say they prefer to read rather than talk on train journeys. They say that in a group undertaking they would prefer trying to improve things over keeping records. In the new edition these sorts of questions have been dropped. The items focus much more on the nature of the thoughts themselves. Diversity of content is maintained; the items focus on a number of different aspects; the

depth of thought, the tendency to get lost in thought, attention to detail, preference for thinking as opposed to doing. High scorers in the new edition are describing themselves as having thoughts that are too deep and complicated for others to understand, as tending to daydream, as being absentminded. There is a greater emphasis on the aspect of being less in control of one's attention. Indeed Factor M is now a contributor to the Global Self Control Factor with high scores detracting from self control.

At the low score end the item content has a greater emphasis on being solution-centred. Previously low M scores were interpreted as down-to-earth but non-progressive and perhaps lacking in insight. Now the emphasis is on a res-

## MEETINGS FOR 1996 (at IARC)

- ① 24 Apr. False Assumptions
  - ② 20 Jun. Details being finalised
  - ③ 9 Sept. Team Climate Inventory
  - ④ 21 Nov. 16PF Update
- Northern Meeting - Sept. Details in April

ponsiveness to environmental demands; a groundedness in reality.

It is interesting to note the negative correlation between Factor M and the Impression Management Scale. This suggests that it is more socially desirable to present oneself as grounded, (low M) than it is to report oneself as abstracted, (high M).

It is notable also that where before M showed no correlation with Factor C, it now shows a negative correlation of 0.38 suggesting that high M scorers are more likely to score at the more reactive, less emotionally controlled end of the scale.

Criterion related validity data shows more associations between high M and lower control. In addition, high scores on Factor M detract from the Leadership Criterion Index.

#### FACTOR Q<sub>1</sub>

The new Factor Q<sub>1</sub> scale is longer with 14 items rather than 10. In previous editions there are items relating to money, politics and propaganda. For example, high scorers say that money can buy anything, that they are aware of attempts at propaganda and that solving political problems is more important than solving moral dilemmas. In line with the criteria for item inclusion, these items have been omitted in the new edition. The items are more general. They relate to how much the person tends to think up better ways of doing things and deviates from established methods, how much the person tends to do original things and seek new experiences, how much the person likes people with unusual views. Whilst the factors with which Q<sub>1</sub> shows the strongest relationships remain the same, the strength of these relationships has weakened as intended.

#### FACTOR B

Factor B measures not temperament but ability. The 16PF is unusual in being a measure of temperament which includes an ability scale. The reason Cattell included it is because of the enormous influence the reasoning ability has on the manifest personality. The revised Factor B scale is longer than before with 15 items rather than 13. In previous editions the ability items were dispersed throughout the instrument. The disadvantage of this is that respondents have to keep changing their mental set from items that have no right or wrong answers to items that do. In the fifth edition the items for Factor B are grouped together at the end. The revised ability scale was developed separately from the temperament scales. Nine of the fifteen items are new. The scale shows a correlation of 0.61 with "The Information Inventory". This is a brief measure of reasoning which has a validity coefficient of 0.84 with the Verbal Scale of the

WAIS. Factor B also shows a correlation of 0.51 with the Culture Fair Test.

In the next two issues we will explore any changes in the meanings of the other factors by considering them in their global groupings.

*Wendy Lord is Chief Psychologist with ASE*

### THE 16PF AND DEVELOPMENT OF SENIOR EXECUTIVES

*A Report on the September 95 meeting by*

*Andrew Life*

Madeline McGill described a one-to-one method of coaching successful individuals who had reached senior executive positions. Her extensive experience confirms earlier findings that the most successful executives are those that can handle power comfortably. They are also self-disciplined and concerned with doing things for the organisation, exercising influence over others regardless of what people think of them. Reluctant to look at feelings, they tend to be unaware of their personal impact.

Madeline maintains that a well-balanced executive needs to complement the capacity to handle power with the behaviour required for the performance of a more relational role. In contrast to the independence, autonomy and self-sufficiency typical of mastery, a relational role involves interdependence, closeness and mutuality.

The coaching relationship may last for 12 months or more. Often the objective has been to achieve a slight shift in behaviour in that time such as moving some way towards a more relational role. In dealing with such mid-life situations, she has found it useful to employ a variety of instruments, notably 16PF5, MBTI, and the Leadership Effectiveness Analysis. Frank discussion of the results functions as an entry point to other matters, mostly concerned with the business situation. Each person being coached has a corporate sponsor who will explain why the organisation is investing in them.

Later, Andrew Harley talked about development centres and the competencies needed by those who aspire to perform at director level, a 3 day programme of activities giving individuals the chance to display their competencies before trained assessors. In addition, participants undertake self-assessed exercises rating themselves against the stated competencies.

Completion of 16PF Form A constituted one of the activities, the associated feed-back being highly valued for the light it threw upon the link between participant's personalities and their observed behaviour. Consideration of the 16PF

profile alongside the assessors' observations, enabled participants to evaluate the potential personal cost of attempting to change their own behaviour, and the relative difficulty of the task.

Madeline and Andrew pointed to the various sources of pressure on individuals which might accelerate changed behaviour. Madeline instanced life events such as divorce, organisational down-sizing, or missing a top job. Andrew stressed the possible impact of individuals having their values and priorities challenged in a development centre. So it is essential that the preparation of participants before attending the development centre and the support of them afterwards, is given equal weight and managed with a high degree of sensitivity.

*Andrew Life is an Independent Consultant*

## LETTERS TO THE EDITOR

Dear Editor

I could sympathise with the views expressed in Chris Halls' letter (April 95 Newsletter), as I returned to psychology 7 years ago after spending more than 20 years in various enterprises where I was mostly engaged in very unpsychological activities!

Like Chris I was dumbfounded when I heard people reeling off strings of letters and then putting them together in combinations and making what seemed like magical deductions about people they had never met. I can well remember writing my first 16PF report; every word was a drop of blood - well it still is actually.

I also remember the first User Group meeting I attended - furtively sneaking glances at the profile chart I had thoughtfully concealed before leaving home, to try and get some clue as to what on earth people were talking about. What I did find, was that this was an enormous challenge - the more so since the subject matter was quite fascinating: not just mastering a test but gaining insight into understanding others' behaviour. Most of the psychologists were extremely friendly and helpful and were willing to share their experiences and pass on their wisdom. Someone suggested I buy Heather Cattell's "Personality in Depth" and this too stimulated interest and aided understanding.

I am sure it was more use to be with "grown-ups" than in a beginners' group. Chris will find the same since most members seem to be pretty A+!

*Paul Sleigh, Hampstead, London, NW8*

## SIZOTHYMIA AND AFFECTOTHYMIA CAN SIZEABLY AFFECT SALES!

by  
*Colin Gill*

All those who use any form of psychological test will be familiar with the concept of straight line regression, expressed using the following equation:

$$y = k + x$$

**Equation 1**

Providing that we have values for  $x$  ( the Independent variable) and  $k$  ( a constant) we could calculate a corresponding value for  $y$  (the independent variable).

In an applied setting we often want to make predictions about performance (dependent variables) on the basis of 16PF sten scores (independent variables). However, rarely in the real world is the relationship between a personality variable and the criterion of interest best described by a straight line. Often it is the case that the relationship is best described by a curve shaped like a rainbow which means that a polynomial regression equation provides a better model. These equations take the form:

$$y = k + (1^0 \times x) + (2^0 \times x^2) + (3^0 \times x^3) \dots (n^0 \times x^n)$$

**Equation 2**

where  $n^0$  is a coefficient

In some recent validation work with the Concise Personality Questionnaire (CPQ), several groups of sales personnel were tested with the 16PF Form A. All the subjects ( $N = 231$ ) were selling from business to business and had been in post for at least 9 months at the time of the survey (mean = 17.9 sd 4.2). Even within each individual company their sales figures were not directly comparable, so it was necessary to assign each individual a rank from 1 to 5 with 5 indicating best performance.

The calculation of a simple cubic regression equation yielded the following figures:

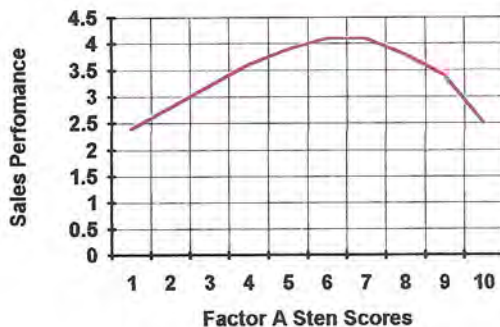
$$y = 1.794 + (0.4196 \times x) + (0.379 \times x^2) + (-7.301 \times 10^{-2} \times x^3)$$

**Equation 3**

As can be seen from Graph 1 the relationship is like a rainbow, with low and high Factor A scorers performing less well than average to moderately high scorers. The correlation coefficient for this line is a respectable 0.88 ( $p < 0.01$ ).

In a small follow-up survey with some of the customers the shape of the line was readily explained. Sizothymic individuals were perceived as cold and stand-offish with no apparent concern for their client's needs or interest in the clients. Very affectothymic salespeople were seen as overwhelming and too talkative to listen, with too much of an interest in themselves to take a real interest in their clients or their client's requirements. Thus a key sales behaviour was absent for both high and low scorers, that is, the capacity to take an interest in their clients and their client's needs. However the absence of this observed behaviour resulted from underlying polar opposites, demonstrating that the links between personality and behaviour are rarely as consistent as we assume, and virtually never adequately represented by a straight line.

**Graph 1**  
The Relationship Between 16PF Factor  
A Sten Scores and Sales Performance  
Categories



Colin Gill is with Psychological Solutions Ltd

continued from next column>>>>

The lessons? Many I suppose. In time we'll know whether we made the right choice. The "disconfirming evidence" allayed some of the fears of the selectors. The 16PF scores are only hypotheses. In this case, it was really the CV, the track record, the interview, and a testimonial which clinched the appointment, although we were reassured by the candidate's answers. We know that test results are only an aid to selection, and perhaps this instance proved the wisdom of that piece of advice.

*S. Trebor, Leicestershire*

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*Members are invited to comment  
on unusual profiles*

Members may remember Wendy Lord's talk about the importance of regarding feedback to the candidate as an essential part of the assessment. The 16PF stens should be treated as hypotheses which need to be tested with the candidate by seeking "disconfirming evidence". I have found this to be most valuable, particularly when I assessed a candidate for the post of technical manager with the following profile. (16PF 4th Edition, Form A. Norms 168 Scientists)

A = 5, B = 5, C = 5, E = 2, F = 8, G = 6, H = 4, I = 7, L = 6.

M = 6, N = 4, O = 7, Q<sub>1</sub> = 4, Q<sub>2</sub> = 1, Q<sub>3</sub> = 5, Q<sub>4</sub> = 5

Extraversion = 8 Anxiety = 5, Tough Poise = 4,

Independence = 4, Control = 7

The low E and the Q<sub>2</sub> did not seem to be appropriate for a manager with responsibility for people, for driving through new ideas, perhaps against those with entrenched views, and having to take unpopular decisions on occasion.

This man (Candidate A) was unassertive at the testing session which he shared with another candidate, (Candidate B) a very confident, assertive man, who was well-used to undergoing psychometric tests, and who took some pleasure in explaining the nuances of testing to A, during a short break. I recall looking through the CVs of Candidate A again during the tests to remind myself of his background, although in truth, I did not need much reminding: a 1st class honours degree, a spell as a research fellow at Oxbridge, a couple of years with a top consultancy, followed by periods with two blue chip companies. And still in his late twenties. For good measure, he had co-authored an academic textbook, (reprinted several times) and had represented his college and university in several sports. How could someone who had achieved so much be so unassertive? How had he overcome resistance?

The feedback session was illuminating. A gave me examples to illustrate that when matters of scientific principle were at stake, he could be very firm indeed. For the rest of the time, well, what was the point in being assertive about things that were unimportant? He kept his powder dry for the things that mattered. In an answer which combined responses to questions related to E- and Q<sub>2</sub>, he talked about battles with patent lawyers to ensure credit was given to all staff involved in a project. Lawyers preferred only one name to appear - that made life easier.

A was an extremely pleasant candidate; courteous to a fault, and he has proved popular with staff. (Well he would, wouldn't he?) Questions remain however: how does an excellent academic record square with his score on Factor B? And I have noticed that sportsmen are usually high on Factor H, which has a risk-taking element. Parachutists, skiers, climbers, and some rugby players are usually high on this factor. How did he only score 4? And what about Q<sub>1</sub>? Should not R and D and technical people be radical and experimenting? Where was the self-sufficiency of an achiever?

I looked at the profile of Candidate B. What Sam Krug would call a nice slope left profile, I thought. Trouble was, he was an over-confident know-all, an aggressive one at that. A director who interviewed him compared him to Atilla the Hun.

<<<<continued in first column.