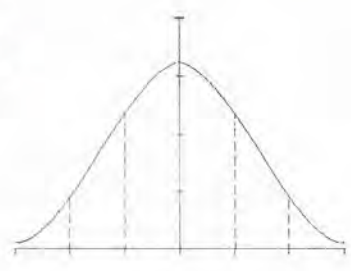


# 16 PF Newsletter

## 16PF FIFTH EDITION

THIRD IN A 4-PART SERIES

**THE GLOBAL FACTORS C, O, Q<sub>4</sub> AND L ANXIETY AND SELF CONTROL**



scorers say among other things that they feel mature in most things, they prefer to get their thoughts organised before speaking, they don't tend to have feelings of self pity and their actions don't tend to be swayed by jealousy. Such items have been omitted from the fifth edition where the Q3 items focus attitudes related to task/time management and order.

The overlap of content between factor C and factor O has been reduced in the fifth edition by omitting items from the factor O scale that relate to mood changes. The revised factor O scale retains items about reaction to criticism, guilt proneness and need for approval. Items have been added about the tendency to ruminate about things after the event, feeling bothered by other peoples' anger and being a worrier. The core of factor O is

### Part One: Anxiety

The core of factor C is the degree to which the person feels in control of current demands. The low scorer experiences more mood changes, is more reactive and feels less satisfied. The high scorer stays calmer, is more proactive and feels more satisfied.

MEREDITH BELBIN 21<sup>ST</sup> NOV

still the degree to which the person is self critical and self doubting.

The items in the revised Q4 scale place greater

In the fifth edition there are more items which relate particularly to mood changes: low scorers say they have more ups and downs in mood than most people, they say they get depressed over little things, they often don't feel in the right mood to see anyone, (this was part of the factor O scale in the previous edition), they may not feel up to going to something they had been looking forward to, they don't quickly get over things that have upset them. Items omitted are those from the fourth edition relating to: sleep disturbance, distractibility, how the person feels they are treated by others and the item about being fearful of wild animals in cages.

TABLE TWO: Factor C Correlations with other Factors.

FACTOR	16PF4 Females	16PF4 Males	16PF5
H	+0.37	+0.31	+0.38
L	-0.44	-0.51	-0.39
M	+0.02	+0.06	-0.38
O	-0.70	-0.69	-0.58
Q <sub>2</sub>	-0.17	-0.14	-0.30
Q <sub>3</sub>	+0.49	+0.50	+0.06
Q <sub>4</sub>	-0.71	-0.69	-0.43

Table Two shows the strongest correlations between factor C and other factors in the fourth and fifth editions.

As the table shows, the correlation of C with L, O, Q<sub>4</sub> has decreased but remains in the same direction. The factor Q<sub>3</sub> scale in the fifth edition no longer shows any notable correlation with C, (nor, incidentally with L, O and Q<sub>4</sub>). In the previous edition Q<sub>3</sub> is part of the Anxiety second order factor but in the fifth edition it does not contribute. The changes to the items in the factor Q<sub>3</sub> scale reflect a reduced focus on emotional content. In the previous edition high Q<sub>3</sub>

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emphasis than before on irritable impatience as a symptom of general tension rather than sampling other symptoms like self doubt, sleep disturbance and impulsivity as the previous editions did.

The domain of the Global Anxiety factor is adjustment as expressed in feelings towards others and feelings towards the self. From it we find out about the type of emotions experienced and the intensity of the emotions experienced but not about the degree to which these aspects will be manifested. The degree of control is assessed by the factors that contribute to the Global Self Control Factor.

## Part Two: Self Control

In the fifth edition of the 16PF there are four factors which contribute to this Global factor. As in the previous edition, factors G and Q<sub>3</sub> contribute but now in addition factors F and M are in this cluster.

Factor G contributes to self control at the high end. Self control is increased by willingness to accept and follow externally imposed rules of conduct. In previous editions some scale G items relate to personal neatness and planning which inflates correlation with factor Q<sub>3</sub>. These items have been omitted in the fifth edition. All items are about preference for and willingness to follow rules and adhere to well defined societal standards. The correlation between G and Q<sub>3</sub> is now lower.

Factor Q<sub>3</sub> contributes to Self Control at the high end through the tendency of high scorers to plan ahead and pay attention to detail. The behaviour of the high scorer is more controlled in the sense of being more predictable as a result of adhering to clearly defined standards of personal behaviour. High scorers are less likely to vary the effort they give to different tasks. The low scorer leaves more things to chance and is more tolerant of disorder.

Factor F contributes to Self Control at the low score end. Low F scorers think carefully before they speak or act. The item content of the scale shows very few changes in the fifth edition. Notably, it is shorter with 10 items rather than 13. The item related to job preference has been omitted as has the one to do with music preference. Also there is now only one rather than two items relating to how the respondent is seen by others.

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## SEPTEMBER MEETING

We realise that many are unable to attend our London-based meetings, and will welcome the first in this series which attempts to summarise the main points. We start with the September meeting, at which Jonathan Leicester, Senior Consultant Psychologist with NFER-NELSON, spoke on the Team Climate Inventory, and Lawrence Warner discussed graphology in the context of selection.

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## THE 16PF AND THE TEAM CLIMATE INVENTORY

The Team Climate Inventory was initiated by The Sheffield Research Programme in 1985. Essentially, it

concerns innovation. The researchers started with a review of the team climate literature and developed a four factor theory - Team Vision, Participative Safety, Task Orientation, and Support for Innovation. The TCI has 44 items.

Jonathan Leicester defined a **team** as a group who share common objectives and who need to work together to achieve them. **Climate** is widely defined as the shared perception of "the way we do things around here". It is the shared perceptions of organisational policies, practices and procedures. **Innovation** is defined as the ability to adapt a situation from an existing base to meet a new demand.

Whilst 16PF has long been used as an aid to team building - Meredith Belbin's original team role identification was carried out using 16PF - the researchers were concerned to develop an instrument that took account of the social psychology of teams.

In small groups we exchanged our experiences of team building, noting that Belbin was useful at the team and individual level, and when diversity was important. The Myers Briggs Type Indicator was useful when compatibility was desirable. We thought these instruments were an aid to team awareness, rather than team building, and were good for dysfunctional groups.

Jonathan discussed aspects of the social psychology of teams, many of us being amused at the concept of **social loafing** - a phenomenon which occurs when there is shared responsibility! It was noted that in NHS teams, doctors are likely to be more influential. So not all teams have members who are on an equal footing.

The four phases of innovation were Recognition, Initiation, Implementation, and Stabilisation. It was Vision which led to Recognition, and Participative Safety (meaning trust within the group) which would lead to Initiation. There needed to be support for Innovation if the team was to reach Implementation stage.

The main limitation of the Team Climate Inventory was the obvious one - that it measures the climate and says nothing about the individual, since individual responses are not identified. Therefore, if the team is lacking in some characteristic, which team member do you counsel, or even take out of the team?

The meeting generated much interest and many questions for the speaker.

*David Roberts*

## THE 16PF AND GRAPHOLOGY

"A WRONG APPOINTMENT CAN COST A COMPANY TWO YEARS' SALARY"

Kurt Einstein, Behavioural psychologist

We all make assumptions about people when we meet them such as in the way they dress, the way they act, from their handwriting, etc. In each case we may be right but we may be badly wrong if we have not had proper training.

### Technical ability and personality

Technical ability is considered to be the most important factor as reported by Hunter & Hunter (1984). However,

the technically competent person can behave in such bizarre ways that he/she leaves a trail of destruction which is costly. Personality plays an important role in this and studies such as that by Tett *et al* (1991) reveal that, properly applied, personality assessment can help us to improve performance by understanding the individual.

### Graphology - the background

Graphology has been known and practised for many centuries. The oldest surviving book on the subject was published officially in 1625 in Bologna. It is to the French in the last century that we owe modern graphology with Abbé Michon. Research was also undertaken extensively in Switzerland, Germany, the USA and the UK.

The purpose of graphology is to predict personality, not the future.

### Uses

Graphology has a part to play wherever personality is important. It can reduce the uncertainty in selecting staff, developing managers and building teams in the broadest sense of the word. It is objective and will help you to understand what motivates the writer. In this way individuals can work together better by complementing one another's 'strengths' and understanding one another's 'weaknesses'.

As Eric Cantona suggested the team which wins has a common goal with each member co-operating towards that goal. The maverick may be useful in bringing new ideas into the team and if you appreciate why the person acts in a certain way you can build on that. Florence Nightingale's personality was a key factor in helping her (and nursing and the British Army) to achieve a number of goals. The team is important not only in the Belbin sense but also in how personalities will react when problems arise.

### Reliability, validity, utility

There is increasing evidence that graphology, properly used, is reliable, valid and cost-effective. Prediction of success is a thorny topic and the concerns expounded by Dewberry (1994) bear examination. Moreover, the original validity tables which placed graphology as having close to zero predictive validity were based largely on the work of Hunter & Hunter (1984) which in turn looked specifically at technical ability. In this short article there is not space to explore this important topic but the writer will be happy to expand on the subject if any reader cares to contact him.

### Fear

There are many factors involved in understanding personality but one of the most important is fear. By this I mean unconscious anxieties which occur when we are threatened and can do nothing about the threat. In such cases the fears grow and can impair integrity; stifle talent; sap drive, energy and vitality; reduce spontaneity; contribute to illness.

A person whose insecurities include strong feelings of inferiority may become the office bully in an effort to deflect what might be perceived as criticism. Energy has to be used by the individual just to keep the fears in

check. Understanding why gives you an immediate key to solving the problem.

### How to undertake an analysis

When arranging for an analysis it is important to advise the person beforehand and also to give feedback. This is not only because this is the ethical way to behave but also because discussing the report with the individual can help to address possible problems before they arise.

A graphology report should not be used as the sole method of assessment but should be used in conjunction with other methods so as to give as full a picture as possible. Personality is complex and no method by itself gives all the answers.

Use a competent graphologist.

### What can you expect?

Graphology will help you to employ and develop people more effectively and this leads to reduced staff turnover, improved efficiency and increased profitability.

### What, why, how?

Handwriting analysis produces a picture of the personality.

The resultant understanding helps you to make better-informed decisions.

It should be used openly alongside other methods with feedback given to the individual so that all parties benefit.

### REFERENCES

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## LETTER TO THE EDITOR

Dear Editor

I found S. Trebor's letter (Oddspot, Feb. 1996) about profiles for candidates for a technical manager's post both interesting and thought-provoking. His point about seeking disconfirming evidence through feedback is, I am sure, important generally and in his example particularly, given the question marks which candidate A's 16PF results triggered.

I notice that his letter referred to a norm group of 168 scientists used to determine sten scores. This whole question of different occupational norm groups is one that concerns me. My feeling is that 16PF is aiming to measure personality traits of people generally and that comparisons of scores should be made on that basis. We then take another step of extrapolation to make some hypothesis about how an individual applies these particular traits in a work role. The shifting nature of the data which emerges when different users of 16PF use different norm groups was brought home to me recently when a candidate for a management post I had tested offered me the opportunity to look at his 16PF report written a short while earlier by another assessment company. They had used their own (albeit quite extensive) managerial norm group – whereas I had used the general population one – and so we were starting with differences in some sten scores. Which brings us back to S. Trebor's point about regarding 16PF data as a hypothesis, and feedback to the candidate as part of the assessment. It might be interesting however, for him to look at his Candidate A raw scores against general population norms.

On a slightly different point, he also expressed surprise about Candidate A's score on Factor B, given his distinguished academic record. Some element of skewdness might have resulted from the scientists norm group used. Also, having used other more specific measures of aptitude along with the 16PF, I do not see consistent correlation between the two sets of scores. For example, I have seen a senior manager score a sten of 4 on Factor B, yet score extremely highly on the Watson-Glaser Critical Thinking Test. I have also seen individuals who have scored 9 or 10 on Factor B scoring extremely low on the Watson-Glaser. Factor B may be too imprecise a measure for some selection situations. Looking for other evidence of the specific kind of intellectual ability required, therefore, seems essential.

*Margaret McCombie, Lydney, Glos.*

### **FUTURE MEETINGS AT IARC**

**Thursday 21st November 1996** Meredith Belbin will talk on The Future of Organisations and Wendy Lord, Chief Psychologist at ASE will give an update on "16PF5 - Two-and-a-Half Years On"

**Monday 27th January 1997** Roy Childs of Team Focus Ltd will talk about FIRO B

**Details for the following meetings are being finalised**

Wednesday 9th April 1997  
 Thursday 12th June 1997  
 Tuesday 23rd September 1997  
 Wednesday 19th November 1997

## **OBITUARY**

**Alberta Karen Cattell**

Alberta Karen Cattell, 79, of Champaign, Illinois, USA, died on 21st August at her home. The memorial service was held at the Universalist-Unitarian Church of Urbana on 31st August.

Karen Cattell was born Alberta Schuettler on 28th October 1916 in Pottsville, Pennsylvania to Charles and Julie Schuettler. She graduated from Pennsylvania State University with a B. S. in mathematics in 1941. Subsequently she completed a Master's Degree in mathematics at Harvard University. During World War II she contributed to naval air design research in Norfolk, Virginia.

In 1946, while teaching mathematics at Wellesley College, she married Professor Raymond B. Cattell who was teaching at Harvard. Later that year they accepted faculty positions at the University of Illinois. During their marriage of 34 years, she collaborated with him in developing and publishing several internationally known personality and ability tests for research and commercial use. For this purpose they founded the Institute of Personality and Ability Testing in Champaign in 1949. Mrs. Cattell acted as director of the Institute until 1992, turning it into a world renowned publisher. She also participated in her husband's research, notable in the invention of cofactor rotation in 1955 and of P-technique in 1947.

She is survived by her children, Mary Cattell, Dr Heather Cattell, Dr Roderick Cattell, Elaine Cattell and Dr Hereward Cattell. She is also survived by her sister Frances Passino, seven grandchildren, and Raymond Cattell.

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