INTRODUCTION

Can I take this opportunity to introduce myself as the new Editor of The 16PF Newsletter. As the Editor I will be trying to obtain the same mix and balance of articles as Dawn Beeson.

With the release of the new 16PF imminent, I expect I will be receiving a number of articles regarding its introduction and use; the first of which is included in this edition. I would also be interested in receiving contributions in the following areas:

- **Research and Analysis:**
  Describing the results of research which you have conducted using the 16PF.

- **Literature Reviews:**
  Summaries of articles, research papers and books reflecting the use of the 16PF and developments in the field of personality.

- **Discussion Papers:**
  Comments on current issues relevant to 16PF users.

This is not an exhaustive list and I would welcome any ideas and articles which you may wish to contribute.

MEETINGS

**29th September –**

**Computer Aided 16PF Interpretation – An Alternative to Narrative Generators.**

Lead: Roy Childs  
Venue: IARC – London  
Time: 7.00 – 9.00 pm

**20th October –**

**Management Norms**

Lead: Dave Bartram  
Chair: Anne Watson  
Venue: Psychology Department – Leeds University  
Time: 1.30 – 5.30 pm

**24th November –**

**16PF and MBTI**

Lead: Roy Childs  
Madeline McGill  
Ken Rawling  
Venue: IARC – London  
Time: 10.00 – 4.00 pm

**Provisional Dates for 1994**

Day Meetings – 28th January, 28th March, 4th November  
Evening Meetings – 8th June, 21st September  
Provincial Meetings – to be arranged

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FACTORS ABOUT FACTORS

Stefan Bondorowicz’s recent paper in the Newsletter “Second-Order Factor Equations: Orthogonal or Oblique Rotation?” is timely and useful, but there is a danger that—because of the necessary constraints on space for publication—it may have tended to encourage more uncritical enthusiasm for the currently fashionable “Big Five” taxonomy is warranted.

What the authors of the paper have shown is that two different methods of analysis have produced really very similar results. But they have not, in the paper, given the inter-correlations of the “oblique factors” they have identified. If, as seems likely, these inter-correlations were all very small, then it is unsurprising that their oblique factors closely resemble the factors found with “orthogonal rotations”. This similarity cannot always be assumed to be the case in comparisons of “oblique” and “orthogonal” factors—as is clear from the analysis I did of the OPO which was published in ‘Guidance & Assessment Review’ for February 1985.

More important however is the limitation of their analysis to the first five common (or Second-Order) factors that they found. With their large sample of 4,670 British Managerial applicants, it is relevant to note that the variance accounted for by their five second-order factors is only some 54% to 63% of the total variance in the scores that they were analysing. (It is not possible to give an exact figure because they have simplified the tabulation of their results by showing loadings of less than .3 as zeros.)

So quite a lot of the non-error variance in their measures is not accounted for by their second-order factors. This means that there are substantial specific loadings for the primary factors even after the effects of the five common factors have been taken into account.

They have not therefore made a case for saying that there are “really only 5 Factors” that need to be considered—and I am sure that they would not wish to do so. But knowing what some “investigative journalists” are prepared to print, I think it is important to emphasise that this analysis in no way discredits the idea that the 16PF has 16 Factors in it!

John D Handyside

LEVEL B, OR NOT ....?

The proposed Level B standards of competence in occupational testing are currently generating much debate and are a matter of considerable dispute. As Editor of the Newsletter, I have had a number of letters and telephone calls relating to this issue. Below, I have listed the issues which seem to be shared by many 16PF users

- The provision of standards is a good thing.
  There is general agreement that some form of psychometric accreditation by the BPS is required. Since 1985 no formal standards have been in place, leading to inconsistency in the quality and content of psychometric training and usage.

- One Level or Two?
  Level B has been designed to assess further competencies over and above those covered in the Level A qualification. However, the two qualifications will inevitably overlap in such areas as feedback, test administration, etc. which relate to both personality and ability testing. In consideration of this overlap wouldn’t one ‘psychometric testing’ qualification be more sensible than two qualifications which share much of the same content?

- Training Outcomes or Processes?
  The Level B competencies provide a clear indication of what knowledge, abilities and skills are required to use personality questionnaires. However, there is no direct guidance of how training courses should be structured to ensure the most effective way of developing these competencies.

- Course Content
  Although the non-attainment of Level B does not preclude individuals from using personality tests, there is still much concern about the skill requirements of the new certificate. These tend to focus upon a fear that the content of the Level B certificate will be unnecessarily complex and involved, thus making it beyond the scope of many non-specialists.

- Lack of Consultation
  Other 16PF users have complained about the general way in which the BPS has approached the implementation of the new proposals. Such complaints suggest that the BPS has not consulted widely enough and has generally tried to push the new certificate through without a comprehensive debate, including all parties who will be affected by this new qualification.

This month the accreditation of Level B takes another step forward. A one-day workshop has been planned for Wednesday 29th September and will aim to produce a ‘white paper’ on the form and content of the Level B. Anyone wishing to contribute to this debate should contact Dave Bartram, NPAL, 31 Beverley Road, Hull, HU3 1XH.

Andrew Kitt
Making a Good Thing Better

The 16PF was a revolutionary concept in 1949 when it's first edition was published. It set new standards in the measurement of human personality. This year will mark the publication of its fifth edition which represents a controlled, natural evolution of the first. The fifth edition has been anglicised for the UK and standardised on a large stratified sample of the UK general population by the OPCS. The data was analysed by the NFER in close association with IPAT. Already one of the most widely used and reputable personality questionnaires, the 16PF has now become even better.

What's Changed?

Firstly, the items themselves have changed in content and presentation. The development of the fifth edition began by factor analysing all the items from the four existing forms. Those retained make up 85% of the items on the new form but they have been re-written so that, like the newly created items, they meet a number of criteria;

- IMPROVED CONTENT AND READABILITY

The goal was to make items clearer and shorter. The reading level has been lowered to make the questionnaire more widely applicable.

- INCREASED CONSISTENCY IN RESPONSE CHOICE

All items now have a question mark as the middle answer to cover all possible reasons for that choice. About 30% have true/false as the other two response positions.

- BIAS

Items were scrutinised for bias with respect to gender race or class and for gender specific pronouns such as "he" or "she".

The factor structure itself has also been improved. All items load highly onto their own scale while their loadings onto all other scales are as low as possible. The internal consistency of the scales has been raised without losing the broad-based nature of the factors.

Special attention has been given to Factor B. More items have been added and they have been placed together at the end of the questionnaire to obliterare the problem of respondents having to change mental set when an ability item is encountered. The new improved scale means that the criterion index scores to which it contributes, will also increase in usefulness.

Another change is that the motivational distortion scales have been combined into one bipolar scale; the "Impression Management Scale". In addition, indexes of random answering and acquiescence have been produced.

You will find the new 16PF easier to score now that the answer sheet has been converted to a carbonized form similar to the majority of ASE's ability test answer sheets. The profile sheet has also been revised so that the descriptions on it capture the core of each factor. The descriptions are briefer serving the purpose of cuing the user into the factor meanings. Fuller descriptions are given on the reverse side of the profile sheet.

The norm book will contain general population norms in three age bands. Sex differences will be clearly indicated for those factors on which they occur. Norms for a professional and managerial sub-sample will also be presented.

Implications for Existing Users

ASE is looking for ways to ease the transition of users from old to new. Eventually we expect to phase out the old forms but they are still as appropriate to use as they always were. You will need no further training to become competent in the use of the new edition. However, ASE will be offering seminars in selected locations nationwide for those who would like to familiarise themselves with this landmark product. If you are interested in coming along, contact Heather Phelan at ASE.

Wendy Lord
ASE
The equations for tough poise are:

Males: \(-0.20A + 0.19E - 0.641 - 0.42M - 0.19Q1 + 12.43\)
Females: \(-0.13A + 0.39E + 0.21F - 0.581 + 0.21L - 0.43M + 7.32\)

Correlations between the primary factors which contribute to these equations are shown in the table below:

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<td>F</td>
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(Reproduced from Table 10.2 of the 16PF Handbook; upper figure = males; lower figure = females).

Tough poise is the third of the higher-stratum source traits identified by Cattell. It is, arguably, the most difficult to understand and interpret. There does not appear to be any coherent pattern in the low and often insignificant correlations between the primary factors which contribute to it, and the task of interpretation is not made easier by the existence of separate equations for men and women.

Cattell associates tough poise with one of the factors derived from his Objective/Analytic test called cortera or 'cortical alertness'. High cortera is associated with mental alertness and 'readiness to handle problems at a dry', cognitive, objective level whereas low scoring individuals on this factor show a tendency to feel rather than think. Cortera has a stability coefficient of around .8 over three months and can therefore be regarded as a personality trait, not a state of alertness which fluctuates over time.

People who score high on tough poise focus their interest and attention on the facts. They are realistic and objective, preferring to base their decisions and actions on factual information and hard evidence rather than feelings and emotions. They have little time for sentimentality.

Low scorers allow themselves to be influenced by their feelings and subjective reactions. They tend to be more contemplative and, possible, more inclined to consider problems and issues in depth.

The time element in tough poise and the greater alertness of high scorers to environmental stimuli suggests that this factor might be related to extraversion, but the correlation between tough poise and extraversion only reaches statistical significance in the female half of the sample quoted in Table 10.5 of the 16PF Handbook.

Tough poise may be the least conceptually pure of the second order factors, but it is a very interesting factor nevertheless. Most personality traits can be classified under three broad headings: cognitive (information processing), affective (feelings and emotions) and interpersonal (relations with others), but tough poise is unusual in the sense that one pole appears to be cognitive while the opposite pole is affective.

Tough poise and emotional sensitivity are sometimes compared with Jung's thinking/feeling preferences, but they are not very similar. Thinking is a preference for basing decisions and actions on an assessment of the consequences of different courses of action, and feeling is a preference for basing decisions on a subjective assessment of their value to self and others, but thinking and feeling are both cognitive preferences, whereas tough poise indicates the degree to which the person is influenced by feelings and emotions. Correlations between tough poise and the Myers–Briggs thinking/feeling index are usually below .3 in large samples (Myers and McCaulley, 1985). It is also interesting to note that H B Cattell (1989) describes tough poise vs emotionality in terms which seem to associate tough poise with sensing as well as thinking, and emotional sensitivity with intuition as well as feeling. (Sensing is a preference for focussing on facts and specifics; intuition is a preference for focussing on possibilities and connections between facts).

Because the primary scores which contribute to tough poise can vary so widely, it is absolutely essential to refer back to the component primaries in interpreting a person's score on this second order factor. The real examples below show the wide range of variation which can occur.

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<td>Charles 1</td>
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<td>9</td>
<td>9</td>
<td>9.22</td>
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<tr>
<td>Paul</td>
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<td>10</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td>5</td>
<td>7.73(m)</td>
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<td>Karen</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>3.93</td>
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<tr>
<td>Ian</td>
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<td>9</td>
<td>8</td>
<td>9</td>
<td>7</td>
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Charles has an exceptional profile, with the minimum score on A combined with the maximum on F. This extremely rare combination, together with I1, results in a very high Tough Poise score. Paul was considered by his colleagues to be exceptionally tough-minded and 'hard', but the female equation reflects these attributes much more than the male one.

Karen and Ian score towards the emotionally sensitive end of the scale. They have the same score on Factor 1, but they differ on the other three primary components which are common to the male and female equations.

Managers who are emotionally sensitive are in a small minority in most organisations and may find it very difficult to fit in. Managers who are considered to be poor performers may tend to obtain lower scores on tough poise than their more successful colleagues (Rawling, 1992).

References
Rawling K B (1992) Follow-up studies of management selection in two commercial organisations (Unpublished reports)
Ken Rawling