USER GROUP NEWS

The November meeting on computer narratives, attended by 34 members, went very well. Members discussed and compared computer generated narratives produced by five different software packages. A summary of the key issues raised will be discussed in an article in the next newsletter.

The User Group AGM will be held on 26 January after the meeting on difficult profiles. User Group finances will be discussed and nominations for the Committee will be invited. Please feel free to attend the AGM even if you are not going to the full day meeting.

You will also notice from the meetings advertised opposite that there is to be a Northern Meeting in October. Many members have expressed an interest in having Northern Meetings and so we hope that this attracts sufficient numbers. Further information about the exact location will be given later in the year, but in the meantime, please let Anne Watson (0423 870500) know if you are interested.

Some dates to put in your diary - a "Ray Cattell conference" will be held on 13/14 May. Information about this conference will be distributed by Team Focus Ltd nearer the date.

1993 MEETINGS

Please note that there have been some changes to future meetings advertised in the last issue.

- 26 January 10am - 2.45pm
  Venue: IARC, 17 Portland Place, London
  Subject: Difficult Profiles
  2.45pm User Group AGM

- 17 March 10am - 4pm
  Venue: IARC, as above
  Subject: Assessing Competencies

- 21 October
  Venue: Northern Meeting
  Subject: Difficult Profiles

- 24 November
  Venue: IARC, as above
  Subject: Comparing MBTI and the 16PF

NEW MEMBERS

20 new members joined the User Group in 1992. If you know a colleague who may be interested in the User Group invite them along to a meeting. Similarly, let the Editor know if you would like to add a 16PF user onto the newsletter mailing list.

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This column is the first in a series intended to update 16PF Users on a selection of recently published research studies, particularly those which have some occupational bearing and which have practical as opposed to purely academic significance. Here goes....

Starting with the high flyers, a study by Lardent (1991) investigated accident proneness of pilots who crash. Lardent analysed the personality profiles of 47 F-4 fighter pilots who had crashed (and survived long enough to take 16PF) in "preventable" accidents where pilot error was deemed to be one of the principal causes. These profiles were compared with those of a matched comparison group who did not crash. Statistically significant differences indicated that those who crashed were very much more conscientious (G+), substantially more trusting (L-), naive (N-) and self sufficient (Q2+), and moderately more relaxed and tranquil (Q4-). The findings are at odds with much other 16PF research into accidents and tend to support the view that accident proneness is not a unitary phenomenon generalisable to all situations. In particular, high G has traditionally been associated with freedom from accidents. It may also be, however, that people with extremely high G set unrealistically high standards, and since flexibility is not a strong part of their behavioral repertoire, may not know when to back off or quit - a crucial issue in dangerous flying situations.

Moving back from the cockpit, Furnham (1991) found a rather less clear-cut picture when using 16PF to identify level of job performance among 136 cabin crew employed by a British based airline. There were few statistically significant relationships. However, Q2 was negatively related to staying with the company; in other words, stayers appeared to be more "group tied" than leavers who seemed more self sufficient, probably reflecting the teamwork nature of the job. There were also some interesting trends in the data. "Predictably, better cabin crew were more stable and conscientious than less than average crew members as well as more tough-minded which presumably allows them to cope with stress" (p.90). Interestingly the cabin crew average profile was very similar to that obtained in a comparable study done by Cattell and co-researchers nearly 20 years earlier. Despite nationality and age differences, a correlation of 0.63 suggests that the profile of an average cabin crew member is pretty robust.

Coming back down to ground, and in fact moving completely underground, Girodo (1991) reported research into undercover law enforcement officers themselves found guilty of drug corruption. 271 agents were tested on a range of personality measures, including the 16PF Q3 scale and Eysenck Personality Questionnaire. For the majority of agents, risk of drug corruption was related to either poor impulse control (Q3-), neuroticism, or a desire to experiment with new experiences.

Among other things, undercover agents work unusual hours. And Plysunin and Putilov (1990) have investigated how 16PF relates to adaptability to shift patterns. They researched the relationship of 16PF to a whole range of biorhythmic characteristics and found numerous correlations. For example, low C (emotional stability/ego strength) was associated with low morning arousal level, while both high C and high G (conscientiousness) were associated with ability to change the sleep-wake schedule. The authors concluded that psychological testing has promising potential for predicting "biorhythmic adaptability for different work schedules".

That's it for now. It is planned to repeat this "recent" research column as and when additional studies are available to report. In the meantime, if you are holding 16PF validity findings or even just raw data which may be relevant to other users, please contact: Rob Feltham, ASE, Darville House, 2 Oxford Road East, Windsor SL4 1DF, or phone: 0753 850333. I and my colleagues will be glad to provide any assistance needed to make the research accessible to a wider audience.

References

Rob Feltham, Director ASE

SOME MORE THOUGHTS ON THE FEEDBACK INTERVIEW . . .

I was surprised that the subject of Non-Directive feedback was not brought up in your September issue. I usually keep as far as possible from directly telling the client what is in the profile. I ask a series of questions that do not elicit just a "yes" or "no" response and never ask if the client agrees or disagrees with a factor.

My preliminary seven questions are as follows:

1. How did you enjoy doing the questionnaire?
2. Were any parts more difficult?
3. Some of the questions are about how you relate to people - how do you think you relate?
4. What sort of situations do you excel at?
5. What sort of situations are you bad at?
6. What can you do to help yourself to improve
7. What things are important to you - and not important?

I then have considerable information from them and the odd "pro" towards one or two 16PF factors feeds to the client as unthreatening the previous seven questions.

What do the experts think about this?

Phyllis Morgan CPsychol, The Test Agency
HIGH VOLUME/LOW BUDGET 16PF

For the last 11 years I have headed a unit engaged in top management selection and development for a group of diverse industrial businesses. During this time, I have accumulated 16PF profiles of more than 250 past and current directors of these subsidiary businesses. As reported elsewhere (1991, 1992) the profiles have been correlated with job performance criteria to yield some interesting findings.

As more and more senior managers/directors have been exposed to 16PF, there has followed inevitable requests to administer the questionnaire to finalists for more junior appointments. These requests rose to a level far beyond the capacity of my department, even with the support of computer software developed by Laurence Paltiel, now of Psytech, which included primary, secondary and other stens and detailed narrative reports.

The problem was that the sten data was too complex to release to untrained "client" selectors. At the same time, the detailed narrative, whilst greatly appreciated by candidates, was insufficiently concise/focused for the busy selector.

We decided, therefore, to enhance Laurence Paltiel's basic package by the inclusion of a "Confidential Memo" to client selectors. This, computer-generated, memo consisted of two features. First, Profile Similarity Coefficients, with appropriate labels, were calculated against in-house normative profiles. The method of calculation is set out on pp141/142 of the Handbook (1970). Secondly, we identified various "risky" stens, primarily derived from our own concurrent validation studies. Laurence then organised the programming of the software to print out corresponding risk messages, devised by myself and classified High, Medium or Low. A specimen Confidential Memo follows:

**GLYNWED GROUP SERVICES LTD**

CONFIDENTIAL MEMO

Headland House
New Coventry Road
Sheldon
Birmingham B26 3AZ 17.10.88

To Mr C Executive

PHIL FORMAN

We have scored Mr FORMAN's 16PF questionnaire and his fit with Glynwed personality norms is as follows:

- Top Managing Directors: 34 (Close fit)
- Sales/MD Directors: 40 (Very close fit)
- Works Directors: 41 (Very close fit)
- Finance Directors: 35 (Close fit)
- Staff Office Executives: 31 (Moderate fit)
- Top Rated Directors: 40 (Very close fit)

The questionnaire has suggested risks as follows:

**High Risks**

None

**Medium Risks**

Possible insufficient IQ: give test or check academic/career history

**Low Risks**

Fairly submissive. Inclined to worry.

Registered Test User: Hugh McCredie

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<thead>
<tr>
<th>Effectiveness Rating</th>
<th>Below average</th>
<th>Above average</th>
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</thead>
<tbody>
<tr>
<td>Job Average</td>
<td>16.5%</td>
<td>33%</td>
</tr>
<tr>
<td>Fit Below Average</td>
<td>33%</td>
<td>16.5%</td>
</tr>
</tbody>
</table>

To give client selectors some perspective on the contribution of 16PF to the selection process I executed a simple 2x2 analysis between the most appropriate profile similarity coefficient for each subject in our normative data base and supervisor ratings of effectiveness in job, viz.

These associations achieved significance but the object was to demonstrate that the 16PF contribution was probabilistic not deterministic.

The enhanced package, including the Confidential Memo, has been available since 1988 and has proved very popular with client selectors. At peak demand we have processed 600+ answer sheets per year. With a growing concurrent data base we have recently re-normed our functional profiles based on the most successful rather than on average performers.

With our own in-house user manual and a half-day training session we have tried to provide a low-cost, readily-available informative but non-deterministic psychometric selection aid.

References


Hugh McCredie

LETTERS TO THE EDITOR

Do you have any difficult profiles, or unusual combinations of scores that you would like to ask readers of this Newsletter about? The editor would be pleased to hear from you.
THE SECOND ORDER FACTORS: INTROVERSION VS EXTRAVERSION

The most recent extraversion equation is:
\[ 0.28A + 0.35F + 0.36H - 0.38Q_2 + 2.15 \]

This is the first of the second order factors listed by Cattell. It is derived from four of the primary factors - A (reserved-outgoing), F (serious-enthusiastic), H (shy-socially confident) and Q_2 (group oriented-self-sufficient). The correlations between these factors are as follows:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>F</th>
<th>H</th>
<th>Q_2</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>0.35</td>
<td>0.26</td>
<td>-0.45</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.33</td>
<td>0.29</td>
<td>0.47</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>0.65</td>
<td>0.60</td>
<td>-0.27</td>
<td>0.35</td>
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<tr>
<td>Q_2</td>
<td></td>
<td></td>
<td>0.41</td>
<td>0.66</td>
</tr>
</tbody>
</table>

(Reproduced from Table 10.2 of the 16PF Handbook; upper figure - males; lower figure in bold - females).

These four primaries are related, but each has its own distinct characteristics. The A+ individual is warm, outgoing, attentive to people, helpful and easygoing. F+ on the other hand reflects the cheerfulness, enthusiasm and spontaneity usually associated with extraversion. Karson and O'Dell (1976) put their finger on the essential difference between these two scales when they say that "... you won't necessarily find the helpful quality in an F+ that you would in an A+ ... a person who is F+ can be expected to have certain extraverted trends, but they are essentially self-centred in quality".

Perhaps this is why it correlates so closely with Factor H, the "Errol Flynn factor". The venturesome, "pushy" socially bold H+ individual is also likely to be rather self-centred.

Individuals who score low on Q_2, the fourth extraversion component, prefer to work and make decisions with other people. They are team players who identify with the group consensus. They are concerned about their popularity and may find it difficult to stand up against pressure or opposition from others to implement "tough" decisions.

At the other end of the scale, the A- individual is cool, reserved, impersonal, and rather withdrawn, tending to be more concerned about impersonal considerations and standards than about people. Low scorers on Factor F are described as sober, serious, restrained, taciturn and introspective. They are pessimistic but dependable. Low scorers on Factor H are shy and withdrawn, lacking in social confidence, and likely to be put under some stress by close or prolonged contact with others. High scores on Q_2 are associated with self-sufficiency and independence, but without the dislike of people which is implicit in the descriptions of A-.

In introducing their section on extraversion, Karson and O'Dell (1976) say that "the first of the second order factors is the well-known introversion-extraversion factor identified by Jung many years ago", and H B Cattell (1989) makes the same connection. However, there are important differences between the 16PF extraversion factor and Jung's extraverted attitude. Jung described extraversion in terms of orientation to objective reality:

"... when orientation by the object predominates in such a way that decisions and actions are determined not by subjective views but by objective conditions, we speak of an extraverted attitude. When this is habitual, we speak of an extraverted type. If a man thinks, feels, acts and actually lives in a way that is directly correlated with the objective conditions and their demands, he is extraverted" whereas the introvert "... interposes a subjective view between the perception of the object and his own action..." (Jung, 1971, pp 333 and 373)

The 16PF measures social extraversion, rather than the cognitive extraversion envisaged by Jung.

A significant feature of the 16PF extraversion equation is that it does not currently include Factor E (assertiveness). It is possible to be an assertive introvert, or an unassertive extravert. However, Factor E was included in the extraversion equation prior to 1973, and Karson and O'Dell make the point that the E may be of importance in certain groups. E is a fairly broad factor in any case. Perhaps introverts are more likely to be occasionally assertive and extraverts are more likely to be generally dominant!

As with all the second order factors, it is important to refer back to the primaries in interpreting any given score. A+, F+, H+ and Q_2 tend to go together, but marked variations from the expected pattern sometimes occur, as in the following (actual) examples:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>F</th>
<th>H</th>
<th>Q_2</th>
<th>Extr</th>
</tr>
</thead>
<tbody>
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<td>5</td>
<td>3</td>
<td>3</td>
<td>8</td>
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<tr>
<td>Alan</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>9</td>
<td>2.58</td>
</tr>
<tr>
<td>Judith</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>7.19</td>
</tr>
<tr>
<td>Stuart</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>6.94</td>
</tr>
</tbody>
</table>

John and Alan have similarly low extraversion scores, but there are significant differences on two of the primaries. John is averagely outgoing but, on the evidence of H3, somewhat lacking in social confidence. Alan is almost the opposite on these two factors - socially confident, but extremely reserved.

The two extraverts with similar second-order scores also show important differences in the primaries. Judith is shy but very group-oriented, while Stuart is socially confident but less interested in working in a group.

References


Ken Rawling