Earlier in the year Adrian Starkey compared the CPI with the 16PF. He summarises his talk below...

Outside in or Inside out?
The CPI is a multi-scale personality measure suitable for similar applications as the 16PF in selection, development and executive coaching. However, there are considerable differences between the theoretical and technical backgrounds to the instruments. In America CPI and 16PF are both widely used general measures of 'normal' personality. However, many assessment practitioners (and candidates) may be unfamiliar with the CPI in the UK.

In developing the 16PF Raymond Cattell’s objective was to define and measure the entire domain of normal adult personality. Cattell used the techniques of factor analysis to determine the ‘simple structure’ of source traits he argued to underlie the surface traits we are able to observe. In contrast, when developing the CPI, Harrison Gough did not seek to define the domain of personality but to measure characteristics of personality that people in most cultures are interested in. The CPI is an “open system” to which new characteristics can be added if any particular culture or sub-culture should desire. The current version of the instrument retains the 20 scales of the 1987 edition, and a number of special purpose scales and indices including Managerial Potential, Creative Temperament and Leadership Potential.

CPI is fully standardised for use in the UK based on a comprehensive survey of 2001 members of the general population undertaken by the Office of National Statistics in 1997 (Cook et al, 97).

Scales of the CPI

<table>
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<tr>
<th>Class I - Social Poes &amp; Confidence</th>
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<td>Re - Responsibility</td>
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<td>Cs - Capacity for Status</td>
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Scales within the CPI are designed to identify individuals who are described by others in meaningful and differentiated ways, and to predict what people will say and do in specific situations. For these reasons Gough terms the CPI scales ‘Folk Concepts’. Over 2000 published studies involving the CPI exist and the instrument has been successfully translated and applied across more than 20 nationalities.

The majority of scales within the CPI are developed using the technique of criterion (or empirical) keying. Criterion keying is a very pragmatic approach to scale development which seeks to identify items which are systematically answered in different ways by members of criterion groups identified as either in high or low possession of a given construct. Items consistently discriminating between criterion groups across samples eventually comprise the final scale. An advantage of the criterion keying approach in self-report questionnaires is that many scale items are subtle and non-obvious in content, and hence difficult to fake. Rationally developed scales tend to be comprised on more transparent, and hence more easily faked items.

In contrast to the factor analytic approach used in the development of the 16PF, criterion keying scales within CPI tend to be multi-factorial or multi-themed. In general this tends to result in relatively low internal consistency reliabilities for scales. Readers will be aware that previous versions of 16PF have been criticised for relatively low scale internal consistencies. For different reasons both Cattell and Gough would be likely to agree that internal consistency was irrelevant as an index of the quality of a scale? Having said this the internal consistency of the majority of scales within the current versions of both CPI and 16PF achieve the contemporary psychometric standard of an alpha coefficient of around 0.7.

Another similarity between CPI and 16PF is that a number of scales within both instruments are clearly inter-correlated. Whilst Cattell was seeking ‘simple structure’ through oblique factor rotation, Gough conceptualises inter-correlated scales within CPI in terms of what he calls a “topographical model”. Whilst the technical approaches to construction differ between the instruments, both contain scales which are designed to inter-correlate to the extent that the characteristics they assess are inter-correlated in the general population.

Both Gough and Cattell argue that behavioural interpretations should be made on the basis of combinations of scales. Cattell argued that source traits should be interpreted in combination to identify surface trait behaviours. Gough is effectively arguing a similar point with his ‘Intensification of Measurement’ axiom which states that within the instrument a sufficient number of scales should be included to depict ‘stylistic modes in the expression of the behaviour’. For CPI it is usual for interpretations to be made on the basis of a combination of Folk Concept scales. A useful interpretive guide exists for the CPI to capture such ‘configural hypotheses’ (McAllister, ‘95).

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**FUTURE MEETINGS**

1. 7th October - Hogan Questionnaire and Hatfield Questionnaire
2. 17th November Executive Coaching Isabelle Orlando
3. 19th January: Sweeney Measures and Emotional Intelligence
Gough's Cuboid Model of Personality

When factor analysis has been applied to CPI scores two major un-correlated (orthogonal) factors are consistently found. One refers to interpersonal behaviour and style (V1) and the other to intrapersonal values and beliefs (V2). Thus, when these scores on these factors are obtained it is possible to identify four broad personality styles from the CPI. Gough labels these:

- Alpha - Norm-favouring externally focussed
- Beta - Norm-favouring internally focussed
- Delta - Norm-doubting internally focussed
- Gamma - Norm-doubting externally focussed

Gough developed a third factor named 'Level of Realisation' (V3), associated with how effective an individual is likely to be in applying the potential of their style. A powerful feature of CPI is that this cuboid (type and level) model allows individuals to be classified according to one of four types at one of seven levels of effectiveness.

The Construct Relationships Between CPI & 16PF

Space does not allow the reproduction of the full table of correlations reported in the 16PF Technical Manual (Table 6.4 p.124). The author's opinion is that the construct relationships between two such diverse instruments are striking, and largely as might be predicted. However, given that the instruments are describing personality variance from different perspectives, the individual scale content of the measures clearly varies according to their intended, stated meanings. Readers are encouraged to study the table for themselves to discern the detailed construct relationships between the instruments.

To summarise, the majority of CPI Class I scales concerned with Social Polite and Confidence are clearly correlated with the 16PF source trait factors of A, F, H, N(-) & Q2(-) related to the 16PF Global Factor of Extraversion. Statistically significant and predictable relationships also exist between Class I scales and 16PF factors of C, L(-), O(-) & Q4(-) contributing to the Global Anxiety factor. Variance associated with 16PF factors E & Q1 is also represented in a number of CPI Class I scales suggesting that aspects of the Global Independence factor are also present within the CPI. CPI Class II scales relating to Social Conformity, Self-Control & Integrity appear to be primarily associated with the 16PF factors F, G, M(-), Q3, C, L & Q4(+), suggesting scales in this class to be related primarily to the 16PF Global Factors of Self-Control and Anxiety. Variance associated with 16PF Global Tough Mindedness is also represented as demonstrated by construct relationships between a number of scales across CPI classes.

What is particularly striking is the degree of relationship between nearly all CPI scales and 16PF factors C and L. One interpretation of this is as an indication of the CPI's utility in identifying emotional stability and a relaxed accepting approach to interpersonal relations. It is interesting to speculate how this might relate to one of the CPI's primary applications in the identification and coaching of leadership effectiveness.

CPI Class I scales concerned with Social Polite and confidence are clearly correlated with the 16PF source trait factors of A, F, H, N(-) & Q2(-) related to the 16PF second order factor of Extraversion. CPI Class II scales appear to be primarily associated with the 16PF factors C, G, L(-) & Q4(+), suggesting scales in this class to be related primarily to the 16PF second order factors of Self-Control & Anxiety.

Is the CPI Useful?

Identification of Leadership Potential

Gough (90) reports six studies examining the use of CPI to identify leadership behaviours. A total of 7331 subjects took part in a number of leadership activities ranging from performance in a leadership group discussion, to ratings of 'aptitude for service' at West Point Military Academy. Across studies median positive correlations above 0.2 were found between ratings of leadership and Dominance (0.33), Independence (0.28), Self-acceptance (0.26), Empathy (0.25) and Sociability (0.21). These results broadly substantiate Gough's theoretical CPI type and level model in relation to leadership, with higher Alpha's typically being more highly rated in leadership roles than other types.

Identification of Delinquent & Criminal Behaviour

Socialisation and other Class II scales within CPI are particularly useful for identifying potentially delinquent or criminal behaviour. A study by Gough & Bradley (92) compares the mean profiles of 672 delinquent or criminal men and women with 3,354 controls. Of the 27 CPI scales evaluated, significant mean differences were found on 27 for men and 25 for women.

Prediction of Managerial Promotion

Jacobs (92) reports a particularly comprehensive predictive validation study conducted over a period of 13 years investigating the promotion of entry level managers to the American Telephone & Telegraph Company (AT&T). In 1977 & 1982 211 men and 180 women were given the CPI as part of a three day assessment centre. During 1980-83 of the original sample were contacted to determine their level of promotion within the new privatized regional telephone company. An interesting feature of this study is that the assessment centre performance of subjects was confidential and not used to determine the individuals' promotability, consequently advancement within the organization was not confounded by initial assessment centre ratings.

CPI scales significantly correlated (p<0.01) with management progression were Dominance (0.30), Capacity for Status (0.29), Sociability (0.31), Emotional Stability (0.19), Self-acceptance (0.17), Well-being (0.18), Achievement via Conformity (0.22), Intellectual Efficiency (0.20). In this study CPI scales predicted managerial promotion at least as well as the expansively obtained composite ratings of abilities made by assessment centre staff.

Summary

The CPI is a multi-scale personality measure applicable for either recruitment or development applications. The instrument is fully standardized for use in the UK with general population or management groups. Considerable research demonstrating CPI's validity in an occupational context, especially in the identification of leadership and managerial potential and criminal and delinquent behaviours.

What are the key differences? Firstly, CPI scales are longer averaging 96 terms per scale as compared to 12 for the 16PF. This means that the coverage of CPI scales is broader because they incorporate many facets of each characteristic. Secondly, greater proportions of CPI items are non-obvious in their link to the scale they are measuring. This can make the CPI more difficult to fake. Thirdly, the CPI describes people not only in terms of how they behave, but also in terms of how they are likely to be seen by others. In expert hands, this external perspective adds greatly to the power of interpretation, and provides rich substantiated material for assessment, development and executive coaching applications.

Outside-in or inside-out? The choice is yours.

CPI is distributed in the UK by Oxford Psychologists Press Ltd.

Adrian Starkey is a Principal Psychologist with OPP

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In: Clark R E & Clark M B (Eds.) - Measures of Leadership
Center for Creative Leadership
ISBN 1-878435-58-0
Character and the Novel

We ended the last edition with a cliffhanger... Bill Lubbock wrote about his talk to local writers' advocating the use of 16PF personality traits to develop characterisation. As a result, one writer revised the main character of her novel with the following results...

MAX

Charismatic, charming when he wants to be. Max is a powerful character. There is little that is weak about him apart from the fact that he's not as good at intimate personal relationships as he could be, probably due to selfishness. That's not to say that he's not a nice guy - most people do genuinely like him, he has many more admirers and friends than enemies. Essentially a dominant person, he likes his own way and doesn't like to be told he's wrong. He's one of those terribly annoying people that is usually right - he has a first class brain, sees things clearly and believes that honesty and loyalty are of the greatest importance. Not someone you could bribe or torture successfully.

As far as family background goes, he comes from a close-knit New England patrician background. An all-American childhood where he was the eldest son of four boys and a younger sister; he was courted by everyone from childhood for he was good looking, excelling at sports, and highly academic. There was some rivalry from the brothers who found it hard to compete and this could have been disastrous had his parents not been level-headed and even in their praise of their sons and daughter. His upbringing could therefore be said to be as happy as anyone could ever expect, no great traumas or upsets and absolutely no hardships. His parents were not extravagant but lived in a beautiful house with beautiful things without too much guilt. The family holidayed at home and abroad. They tried to make sure that their children were aware of what was going on in the outside world, to some extent at any rate.

Into this slightly unreal world of success, wealth and power came a young girl totally unprepared and somewhat out of her depth. No wonder the 14-year old Nina was dazzled.

16PF Test

A Max is slightly aloof at heart, below average in emotional warmth, but capable of being warm and outgoing when required. So in France he appeared very friendly to the locals - can he turn on the charm! - because he wanted very much to be accepted. But with his own family (Nina and the kids) he could become detached, cool and reserved. Nina forgives him for this because she accepts him for what he is and loves him without (almost any) reserve. Most of the time he is perfectly easy going with the family but becomes pissy, bossy if crossed.

Acknowledgement

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Easier on the younger children and a good father in that he'll try anything with them. He hardened on James. Can be cool when he wants to be - even with Nina - she doesn't fight back, just accepts it. Cautious in real emotional expression, a bit critical in outlook, slightly reserved in manner - unless a situation calls for the reverse.

C Emotionally stable, calm, faces reality. Untried. Not greatly troubled by matters that affect others, satisfied with own life. Takes life as it comes - up to a point. Objective. However, has a social conscience with Nina's influence. Avoids unrealistic expectations and adventurous side to him will override this. There is a wild side to Max and this has led him to make the odd uncharacteristic mistake. [A recent lapse of judgement (trusting someone when he should not) lost him a lot of money. He was confident that he would repair the damage and would have quite easily if not for the accident. Unfortunately his life assurance was tied up in the deal as well.] Copes fairly well with disappointments. Able to plan ahead to meet misfortune and foreseeable risks, therefore is careful 95% of the time. Doesn't set unrealistic goals. Not guillotine, doesn't go in for self-criticism. Generally not moody or impulsive, most things carefully planned out. Has good morale.

E Strongly assertive and dominant, independently minded, can be bold and courageous. As he usually assesses situations correctly Max would be a man to tag on to. On occasions he has been headstrong and could, in certain circumstances, be aggressive. But he would far prefer to reason his way out of anything. He doesn't care much what people think of him but will resort to charm when he wants something to make sure people do like him. He wants to be in charge, to be in control and to see that everyone else does what to - humble aren't his. But he is aware of how he does this, and will convince the person or people that this course of action or whatever, is what they want to do. Enjoys meeting challenges - in fact, needs challenges. Is capable of being flexible if reason is good enough.

F Max would be described as an enthusiastic person, that is when he's keen on something he'll go for it. He can appear very exuberant when he's doing something he loves - like renovating La Channels, flying his aircraft, at parties he can be the life and soul as long as he likes the guests. He can talk spontaneously on almost any subject, if he feels so inclined, and isn't usually sensitive to other people's wish to contribute. Likes change, in jobs particularly, variety is the spice of life. Attracted to jobs with variety and excitement. Can get bored quite easily. As far as his love life goes, he was very sexually active in his youth but has by and large been faithful to Nina - something he has found very difficult. Despite this, loyalty to his family is important to him. His family does come first but this has taken him some years to realise. Better talker than listener. Has many friendly acquaintances who think they are close to him but in fact there are only a handful of people he truly trusts and all of these are school or college friends. The person he trusts most, although she doesn't realise it, is Nina. She has influenced him more than either he or she is aware.

G Although Max is a responsible adult, believes in loyalty - to people at least - and basic honesty, he sometimes runs at some of society's mores, mainly because he doesn't like being told what to do. Don't expect him never to have insinual! Will question sometimes what we take for granted. Is capable of radical thought. Can be hypochondriacal, eg. when Jamie admitted mild drug abuse, Max went berserk.

H Max could never be called shy. While not a continuous extrovert he usually likes being the center of attention or at least has no problem with it. But that's not to say he is always searching for the limelight - when it suits him he is quite happy to stay in the background. Capable, and frequently makes quick decisions. Has found that when he takes too long over decisions they are the ones that go awry. Because of this boldness he can under-react to external dangers and to some extent seeks risk-taking that gives him a thrill. He enjoys fear in small doses. Likes ghost stories and horror movies - Nina can't abide the latter. Will always try the most stomach-churning ride at the theme park - while the others look on. Able to deal with stress.

I Tough-minded, insensitive to others - unless he's really trying - self-reliant, realistic, although sometimes he can think himself over this one when he's connected to his intuitive self, buried deep down. For the most part he's logical, self-sufficient, independent and accepts the harsh realities of life. Although
Who said that—and what were they like?

The above piece resulted in some fascinating e-mail between Wendy Lord and Bill Lubbock. Read on:

High F, High O
There is only one thing worse than being talked about and that is not being talked about.

Oscar Wilde

High C, High F person counselling a Low C, Low F person
There is nothing good or bad but thinking makes it so.

Hamlet, William Shakespeare

High B, High M, High Q., Low I
There once was a man who said, “God, Must think it exceedingly odd, If he finds that the tree Continues to be When there’s no-one around in the quad.”

And the reply from someone even more extreme on each of the above...

Dear Sir, Your astonishment’s odd I am always around in the quad.

And that’s why the tree continues to be Signed by, yours faithfully, God.

There was much more than this, but that’s a sample. Now, who’ll describe a favourite writer in 16PF terms? I offer the following for someone else to caption with 16PF characteristics: no prizes, other than publication in subsequent Newsletters.

Happiness writes white.

Montherlant

It will be evening before we know how splendid the day has been.

Sophocles

I DIDN’T COME HERE TO ARGUE

Indeed not. Remember the piece in the last Newsletter about interpersonal skills and the need for a lack of these at top levels—contrary to received wisdom? The FT correspondent must have read our Newsletter! The issue of 12/13 June carried a headline “Execute or be executed” It said, “Wall Street, having driven share prices to sky-high levels, is looking for executives [who can operate] with ruthless efficiency.” QED!

SUBMISSION OF MATERIAL

The Editor welcomes contributions from members either as letters or as articles on the use of the 16PF.

Case histories, unusual assignments, as well as unusual profiles are welcome.

When submitting material, please enclose a 3½” disk together with the printed copy. This saves re-typing and minimises the risk of mistakes.

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