

# THE 16 PF® NEWSLETTER

## THE INNOVATION POTENTIAL INVENTORY

Almost everyone seems to be interested in creativity and innovation. Particularly leaders of industry and commerce, who demand it, say that their company will not survive without innovation, but have no idea as to how to encourage it other than through exhortation. Doesn't work. Those who attended **Fiona Patterson's** presentation at our June meeting will have left with a much clearer idea of what it is and how to encourage it. The following is a brief summary:

Fiona started by defining creativity and innovation. Creativity is concerned with the new and completely original, whereas innovation deals more with the application of novelty and is a social activity.

In the past, creativity has often been stifled through the management style of 'command and control' organisations. Even in companies in which creativity might now be encouraged, there is still a need for the technical skills with which to back it up. No good inventing a new gizmo if you're working with technophobes. And of course the culture of the organisation has to be receptive to new ideas.

Innovation is a process – identify the problem, generate ideas, develop and explore them, and implement them.

Creativity has long been the subject of myths such as that few people are creative; those that are, are oddballs; that lateral thinking is enough on its own; that older people are less likely to be innovative.

Fiona's Innovation Potential Inventory (IPI) focuses on four factors: motivation to change; challenging behaviour; willingness to adapt and consistency of work styles. She discussed each of these in turn. In case you think challenging behaviour means being really difficult, be assured that this is not necessarily so: it might mean simply, "Is there a better way of doing this?"

The IPI can be used for selection and assessment, career counselling and personal development, team selection and building organisational change and development.

### **Blocks To Innovation**

So what are the blocks to innovation? At the personal level, Fiona cited the following:

- Looking for the one right answer
- Dismissing possible solutions on the grounds that they are not logical
- Not wanting to appear foolish

- Focusing on a narrow area and avoiding the wider viewpoint

From an organisational angle, distrust, lack of communication, personal hostilities, company politics, competition between departments and unclear goals are each likely to inhibit creativity.

In summary, Fiona said that leaders could enhance creativity by encouraging ideas, providing adequate resources, and selling ideas to stakeholders during implementation.

The organisational climate and culture are critical to the acceptance of creativity and innovation.

*David Roberts  
Editor*

**Teresa Payerle**, writer and broadcaster from Ohio, USA, has been living in Berlin for seven years. In the July Newsletter she gave her views on the Myers-Briggs Type Indicator and its value to her. Here, she follows it up with her views on NEO PI-R - she has an appetite for these things: there may be more to come...

## **REVELATIONS**

Asking David Roberts to assess my personality using the NEO PI-R was a bit like undressing in front of a stranger. There are no amusing tattoos or intimate piercings to reveal, but would I feel bashful? What would he make of my Wonder Woman underwear?

But I needn't have worried. I learned as much about his test subject as he did, and it wasn't embarrassing, not even for a person assessed as 'slightly more self-conscious than most'. So *that's* why I hide in a corner

to talk whenever my mobile rings on a train. And why in a public contact-lens crisis, the first thing I used to think of while in severe pain was not where to find a washroom to take the lens out, but how I could get away from this busy area and all these staring eyes? Or at least all those eyes that I imagined were staring.

The above-quoted phrase has stayed in my mind ever since. It was a revelation to learn that those who call attention to themselves in public with no embarrassment whatsoever are simply not like me. It has helped me to understand that I'm not attracting as much attention as I often imagine I am, and that my self-consciousness is a valid part of my personality, just one trait among many that add up to a fairly satisfactory whole, and for me it's normal. The test results gave me a sense of validation.

## **Trying New Things**

The results were revealing in other important ways. Reading about my high score in the domain of Openness to Experience, my reaction was: do you mean other people aren't like that? A willingness to try new things - whether eating unfamiliar foods or re-evaluating political views - seems quite normal to me. Much as we accept the obvious truth that people are not all alike, it was still a surprise to me to see in black and white just how different I am. Here was written confirmation of a long-held suspicion. For comparison, David wrote: 'Low scorers tend to stick with what they have always thought, or were brought up to believe.' Deep down, I had never fully comprehended that some people actually do insist on doing things a

certain way only because 'this is how we've always done it.'

It was helpful to know that my degree of curiosity and openness to new ideas is unusual. There is no doubt I have put off people like those above by suggesting ideas or expressing opinions that were beyond their scope, having no idea at all that I was doing this. Now I'll be more understanding and keep my mouth shut. Likewise it should no longer surprise me when others cannot fathom why I live as an expatriate, when to me the worth of the experience couldn't be more obvious. While I could certainly understand the fear of doing it, I couldn't understand those who don't see any value in it. The difference lies in personality traits. Knowing this has made me more accepting of the lack of understanding I often face.

### Impulsiveness

On this test, low scores can be good, such as on vulnerability to stress, meaning the subject is able to handle stressful situations well. My score on impulsiveness was also low, meaning, David explained, that I can more easily resist things that tempt most people, like food and possessions. No shopaholism here. But since the just-say-no approach to junk food, which I adhere to at least most of the time, is easier for me than it would be for others, I also don't get to feel superior. Compassion for the struggles of the dieter is what's now called for.

The test indicated a preference for keeping busy and active but a dislike of glitz and racket. Lack of need for external stimuli or quick gratification

would fit in with low impulsiveness, reflecting the test's accuracy. Some other instances in which it knew me better than I expected:

Likely to be a little reserved when dealing with others until I know them well: dead on.

A little reluctant to get involved in the problems of others: also dead on, I'm afraid.

Not keen on crowds: dead on. See prying eyes, above.

### Trouble

There were some warnings too. 'You may dig your heels in on issues that you believe to be important.' 'You may speak or act without considering the consequences.' As David not only assesses but interprets the bits of information to draw conclusions that might not be obvious to the lay person, he wisely pointed out that these two traits in combination could lead to trouble. So I'd noticed. Where was he with this information twenty years ago?

People with this profile may have difficulty focusing and be 'not likely to stay in any occupation that does not supply new challenges.' Because the NEO PI-R is used primarily to assess people in work situations, David appropriately commented that for those with my profile, good judgment is critical. 'If their judgment is underdeveloped they commit themselves to ill-chosen projects, fail to finish anything and squander their inspirations on uncompleted tasks.' This ties in perfectly with my ENTP Myers-Briggs® profile. Wise words.

The one quibble I had with the testing is that it seems to measure an adult female only against other adult

females. This seems artificial, since we don't live in a world consisting only of women. It could well be that certain traits are stronger in one sex or the other and it would be accurate to measure those only against an equivalent group, but I would find it more useful to know how I stack up against the whole of the population, not just half.

Still, there's no discounting the enormous value the NEO PI-R, with sensitive interpretation, has had for me in understanding others and in seeing what potential I still have, even thirty years into adulthood.

Now would you all please stop staring at me?

*Teresa Payerle  
Berlin*

## Seeing ourselves as others see us

Those attending the June meeting experienced a very stimulating presentation from Dr Steve Woods, currently in transition from Nottingham to Aston Universities.

Steve started by reminding us of the many correlates of personality traits, listing: work performance, training success, organisational commitment, job satisfaction, vocational/career choice, health and well-being, mortality, mental disorder, educational attainment, marital success and failure and the common cold!

Steve's broad thesis is that people are usually asked to respond to personality questionnaires from a general, non-contextualised perspective. He poses the question as to whether we could obtain improved

correlations with the various criteria if we were to ask subjects to respond from the point of view of someone in the context for which the tester was intending to make the correlation; e.g. from the perspective of the boss if we were trying to predict work performance, from the perspective of a friend or romantic partner if we were examining relationship satisfaction. Steve termed these different viewpoints 'meta-perceptions' and then proceeded to report on two studies designed to examine just these two contexts - work performance and relationship satisfaction.

## Single Item Measures

The personality instrument that Steve used in his first study was his own Single-Item Measures of Personality' (SIMP) about which he talked to the Users' Group two years ago. Basically, Steve asks respondents to rate themselves on a 9-point scale against two polar descriptors for each of the Big Five personality factors (Extraversion, Neuroticism, Open-mindedness, Agreeableness and Conscientiousness). For example, with Extraversion, the polar descriptors are:

- Talkative, outgoing, comfortable around people, could be noisy and attention-seeking
- Reserved, private, doesn't like to draw attention to themselves, can be shy around strangers

Steve's first study looked at work performance as measured by overall assessment centre ratings. In respect

of each of the Big Five factors he asked subjects to respond first generally: I see myself as... (e.g. Talkative... Reserved). Then they were asked to respond from three meta-perceptions: work supervisor, romantic partner, close friend (e.g. my work supervisor would say that I am...)

As hypothesised, in this work context, the work supervisor meta-perspective proved to be the most effective predictor of overall assessment centre performance ( $r = .40, p < 0.01$ ) compared with the generalised self-response ( $r = .27$ , not significant) and the romantic partner and friend meta-perceptions.

### Big Five Factors

A second study looked at relationship satisfaction and used a 44-item measure of the Big Five factors. As before general self-ratings were obtained together with work supervisor, romantic partner and friend meta-perceptions. On this occasion, relationship satisfaction was predicted most strongly by romantic partner and friend meta-perceptions.

Steve's conclusion was that matching the social context (e.g. work performance or relationship satisfaction) of criteria and personality ratings may improve prediction. I recall a specific instance of this phenomenon from several years ago when Prof. Steve Poppleton addressed the Users' Group and reported better prediction of sales performance from his dedicated sales aptitude personality test (PASSAT) than was typical of more general personality measures such as 16PF.

*Hugh McCredie  
Co-Ordinates*

### **Yes, Even More On Creativity**

Fiona Patterson's presentation on creativity and innovation stirred something within me. It took me to the computer where I looked at results of administering the Innovation Potential Inventory on creativity modules to a broadcasting group some years ago. I also re-discovered some notes I made on the whole subject. Knew they'd come in useful.

Let's start by asking readers a question: when do you get your best ideas? At work, poring over the computer or a stack of invoices? When writing a report, or doing the annual budget? Very unlikely. The best conditions for idea generation (known in the trade as ideation – ugh! Horrible word!) are when we are relaxing. They can be summed up by referring to the 4Bs – the Bed, the Bath, the Bus and the Bar. Doesn't take much thinking through, does it? You could add walking the dog but the alliteration doesn't fit, so we'll leave it at the 4Bs.

Surprisingly, the study of creativity has been largely confined to the last 50 years or so, although Alex Osborn (1888 – 1966) an advertising manager, formulated the idea of brainstorming as long ago as 1938, and Guilford was the first to talk seriously about creativity in the 1950s. In 1974 Dr Ellis Paul Torrance (1915 – 2003) invented the Torrance Test of Creativity. Even so, of all psychological articles published from 1975 – 1985, only 0.5% dealt with creativity.

## Creative People

Now, here's an exercise you can pose to your family or friends: make a list of six famous creative people. When I did this, I got Mozart, Beethoven, Dickens, Shakespeare, Picasso and Rembrandt. So I said what about Whittle (jet engine), Edison (light bulb), Marconi (wireless), Fleming (penicillin), Einstein (physics), Fox Talbot (photography), Cockerell (hovercraft), and Baylis (clockwork radio)? I got a similar response when, researching the subject, I rang a departmental head in broadcasting to enquire how creativity was encouraged in his department. "Sorry", he said. "Can't help you there. All my people are technical." I was going to say, "Well what about stereo, quadrasonic sound, plasma television screens, CDs and DVDs?" But I didn't. Creative scientists, and writers and artists have been shown to have much the same personality characteristics.

## Mind Set

There is clearly a perception that only 'artists' of one sort or another can be creative. But Cattell said in his *Handbook for the 16PF*, that creativity could exist at all levels, from scrubbing the floor to formulating scientific laws. It's like intelligence: we all have it but in varying degrees.

It seems to me that if Cattell and others are right, it is largely a question of 'mind set'. If we all have some creativity within us, it seems logical that it just needs to be nurtured, and we need encouragement to break with our traditional ways of thinking. Perhaps one aspect of this mind set, might be called 'reverse thinking'.

Here are some examples that I collected, although I can no longer remember where or when.

**Television.** Kirsty Young (ITV) was the first to stand up reading the news. BBC bosses were horrified and outraged. No way to announce the news! Not too long afterwards we saw John Snow (BBC) leaping about, particularly during election programmes with his 'swingometer'.

**Game show hosts.** Traditionally they have appeared to be insincere creeps that make your toes curl with embarrassment - from Michael Miles, to Hughie Green, Bruce Forsyth, and dozens in between. Then along comes Anne Robinson in *The Weakest Link* and says in effect "let's be nasty to people". And everyone loved it. During her spell in the USA, she had her name in lights in Times Square.

**Sport.** Heavyweight boxers were always slow and ponderous. They didn't dance in the ring. Then along came Muhammad Ali. Boxers always held their hands up. Ali kept his down. He was the greatest.

Dick Fosbury – the high jump. There was the Western Roll in which you went over the bar frontward. There was The Straddle and the Eastern Cut Off and The Scissors. Fosbury found all these to be too complicated. So at the age of 16 he started to experiment by doing it backwards. The Fosbury Flop was born – and now used almost exclusively by high jumpers.

## Japanese View

In the last 30 years or so, Japan has appeared to become pre-eminent in creativity and innovation. It is encouraging then, to note that the Japanese Government issued a report

just a few years ago, in which it stated that 55% of the world's inventions over the last 100 years had come from British ideas. I have no figures for other countries, but the Patent Office in the UK receives around 27,000 applications p.a. Only 2% get to market.

Most people use the words 'creativity' and 'innovation' to be interchangeable. In ordinary conversation this doesn't matter too much, but in an organisational context, the difference is important, so what are we actually talking about here? What is creativity? There are many definitions, but for the moment, let's just say it refers to the invention of something that is novel and is of benefit to the organisation.

So are we expecting the average employee to be a Barnes Wallace, he of the bouncing bomb fame whose invention destroyed the Mohne Dam in World War II? Or another Sir Frank Whittle, Sir Christopher Cockerell or Trevor Baylis? No. *Creativity at a high level will always be in rare supply – far too rare for every organisation to be able to depend on an adequate supply.... But innovation need not be. Innovation refers to the ability to take an existing idea and adapt it to your own circumstances.*

### [Problem Solving](#)

This brings us to a key point regarding creativity. Creativity can be used to produce works of the imagination or it can be used to solve problems. The creative scientist will see problems in a new light. He will take a different view of the world. He will be able to look at conventional problems and see new – even off-the-

wall – solutions. He will see conventional problems as demanding unconventional solutions.

Now that you have a better idea of what we mean by creativity you may be asking yourself some deeper questions such as:

- If a person is creative in one field, does it follow that he can be creative in another?

Or

- If Beethoven is creative, where does that place say, George Gershwin? Or the composer of a pop song?

Or

- If Dickens created fascinating characters, what about Peter Cheney or Dick Francis, or Stephen King? What about the writers of the Morse television series, or Inspector Frost. Do they count?

The answer to the first question - about being creative in more than one field - appears to be 'no'. It does not follow that a scientist will be equally as creative as a painter might be. Mozart, a musical genius, confessed in a letter to his father that he could not write poetry. He said, "I cannot arrange words poetically so that they reflect shadow and light."

The answer to questions two and three raises questions about creativity to which we do not yet have the answer. There appear to be varying depths of creativity. But we can say this: to a large extent, what is or is not creative is in the eye – and mind – of the beholder. We have only to think of an abstract painting to realise the truth of this.

I'll leave you with this thought: if we define creativity as producing

something novel, we must ask, “what *is* novel?” It is hard to think of something that does not have its origins in something previous.

### To be continued

*David Roberts*  
*Editor*

## **THE INTROVERT ARMS AND ROAD RAGE**

Readers may see a connection between this watering hole and road rage. I mean, after a conversation with the bullying and aggressive Angus, and the wimpish Hubert, one might be forgiven for being a little overwrought. This might show itself in road rage. When I mentioned this to Hubert on one occasion, he kept referring to it as ‘woad wage’. Says it all really, doesn’t it?

Anyway, I was trying to get a discussion going on the subject because I had read that a safety expert had suggested that psychometric tests should be part of the driving test. The current system, which concentrates on the mechanics of driving, fails to root out drivers with the wrong attitude to road safety. What was required, he said, was something that indicated whether a driver was likely to break the speed limit or jump a red light. If so, instructors might then be able to modify such behaviour.

They might ask, for example, a question such as “Have you ever left the traffic lights while they have been on red?” Dr Lisa Dorn of Cranfield University has devised psychometric tests for drivers, and these are

currently being used by Arriva to assess new drivers who face a one in two chance of being involved in a collision in their first year.

Over a period of four years, the company reduced fatalities involving its buses by 31%. She said it would be difficult for candidates to give a false impression of their attitudes to driving because there are two scales within the assessment that show the extent to which people hold very strong beliefs about their driving.

The Government is considering the matter.

I said in the last newsletter that The Introvert Arms might become The Ranting Arms. It was at this point. Tony, the landlord, looked up from his Sudoku puzzle, his wife looked up from The Times crossword, and one or two regulars broke off from some detailed philosophical discussion, as Angus started to rant about the limiting of freedom to do as you wish on the road. I drew on my pint of Pedigree to conceal my embarrassment.

Hubert strode manfully to the bar and then wimpishly ordered a Dubonnet and lemonade. That’s my boy!

*Editor*

### **DATES OF FUTURE MEETINGS**

**Wednesday 3<sup>rd</sup> October**

**AM Coaching and psychometrics**

**PM Coaching styles**

**Thursday 29<sup>th</sup> November (4.00 pm start)**

**Tuesday 5<sup>th</sup> February 2008**

**Wednesday 23<sup>rd</sup> April 2008**

**Tuesday 17<sup>th</sup> June 2008**

**Wednesday 8<sup>th</sup> October 2008**

**Thursday 27<sup>th</sup> November 2008**

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