Summer 2011 Edition 61

PSYCHE

The Newsletter of The Psychometrics Forum

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A Few Words from your Editor

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Welcome to the summer 2011 edition of Psych – the Newsletter of the Psychometrics Forum. Firstly my thanks to Lynne & Ann who did such a great job guest editing our last edition. Since then we have had a few busy months and broken some new ground within the Forum. Recent exchanges between members of the organising committee who are putting together the schedule of events for next year suggest that we can continue to look forward to hearing from some fascinating speakers through 2012 and beyond. The committee is meeting to finalise programme arrangements on the 12th of July so any offers to speak or suggestions for potential speakers would be warmly welcomed.

Personally most memorable has been the Neuro-science: Brain & Personality event back in May. We were breaking some new ground with presentations of some cutting edge ideas and research that explored our current understanding of the intersection between neuroscience and psychometrics; and speculated on the direction and applications for future developments in the field. We were fortunate to have three excellent and knowledgeable speakers in Rita Carter, Prof. Paul Brown and Prof. Colin de Young. In this edition there is a piece from our friend and former Editor David Roberts on the positioning session delivered by journalist and author Rita Carter. In the autumn edition we can look forward to contributions on the other two sessions from the day focussing on interpersonal neurobiology and possible structural and neurochemical relationships between the brain and the Big-5.

In the current edition we are also fortunate to have two reviews of presentations from the February event from prolific Psyche contributor and TPF committee member Lynne Hindmarch. Hugh McCredie also makes a welcome return with number four in his series on the relationship between Big 5 constructs and management – this time to review the literature as relates to agreeableness. I am also delighted to be able to include contributions from very knowledgeable TPF affiliates Rab MacIver of Saville Consulting and Norman Buckley of Redfield Consulting. Many thanks to all contributors to this edition for taking the time to put finger to keyboard.

Around the time that you will be receiving this we are also very pleased to be hosting an event on 23rd June where we will be joined by two 'giants' of the psychometric world. Bob Hogan and Peter Saville are both presenting on the theme of 'Personality, Leadership & Organisational Effectiveness'. Not surprisingly this event quickly sold out. For those of you unable to get tickets you can at least look forward to reading about these events in future editions of Psyche.

Finally, I am very pleased to announce that Psyche will be getting a design makeover for the Autumn edition. We are currently finalising a professionally designed template that will mark further evolution in the life of The Psychometrics Forum.

Keep an eye on most recent developments on the News & Events Section of our website:

http://www.psychometricsforum.org

Copy Deadlines

Autumn	15th September	Copy due 12th September
Winter	30th November	Copy due 11th November
Spring	29th February	Copy due 10th February

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Leadership Transformation

Lynne Hindmarch* - *Business Psychologist & TPF Committee Member

Report on the February 2011 Psychometrics Forum

David Rooke, Director at Harthill Consulting has consulted with executives and their organisations for more than 20 years. He has co-authored several books and has been published in the Harvard Business Review. He is highly regarded for his work applying the Leadership Development Framework (LDF) to leadership, team and organisational transformation.

David explained that fundamental to this approach to leadership development is asking thought-provoking questions, such as 'Has your leadership evolved over the years that you have been a leader? In what ways is it different now than when you first led?' Other questions may be more future-oriented: 'Do you anticipate being a wiser and more capable leader in the future? If you imagine your capabilities will grow, in what ways will they be different in say 10 years' time?'

The underlying philosophy of the LDF emphasises the fundamental meaning-making structure of leaders as a key influence on their actions. Developing this deep but often unacknowledged capacity is key to the LDF approach. It is the internal 'action logic' which differentiates leaders – that is, how they interpret their surroundings and react when their power or safety is challenged. Few leaders try to understand their own 'action logic' and even fewer still explore the possibility of changing it.

Over a period of 25 years of consultancy and associated research in America and Europe, David and his colleagues discovered that levels of corporate and individual performance vary according to action logic. Each action logic has a particular focus of attention and associated leadership characteristics.

David and his colleagues developed a sentence completion survey drawing on Loevinger's (1976) work on the stages of ego development. Their 36 sentence Leadership Development Profile has been completed by thousands of executives whilst developing leadership skills. By asking participants to complete sentences beginning with phrases such as: 'A good leader…', highly trained evaluators are able to paint a picture of how participants interpret their own actions and the world around them. The focus is on trying to understand the participants' meaning-making structure, and encouraging them to think about the picture they see and how complete they are. In their rating, the evaluators take into account the complexity of sentence structure, the richness and range of the subject matter, the certainty, impatience or inquiry of the tone of voice, conformity (clichés or fresh ideas), and the number of ideas.

The resulting picture shows one of 7 developmental action logics and which one currently functions as the leader's dominant way of thinking. The different action logics are shown in the table on the following page:

The 7 Action Logics

Type	Characteristics	Strengths	Weaknesses
Opportunist	*Win any way possible.* Self-oriented; manipulative; 'might makes right'.	Good in emergencies and in pursuing sales.	Few people want to follow them for the long term.
Diplomat	*Avoids conflict.* Wants to belong; obeys group norms; doesn't rock the boat.	Supportive glue in teams.	Can't provide painful feedback or make the hard decisions needed to improve performance.
Expert	*Rules by logic and expertise.* Uses hard data to gain consensus and buy-in.	Good individual contributor.	Lacks emotional intelligence; lacks respect for those with less expertise.
Achiever	*Meets strategic goals.* Promotes teamwork; juggles managerial duties and responds to market demands to achieve goals.	Well suited to managerial work.	Inhibits thinking outside the box.
Individualist	*Operates in unconventional ways.* Ignores rules he/she regards as irrelevant.	Effective in venture and consulting roles.	Irritates colleagues and bosses by ignoring key organizational processes and people.
Strategist	*Generates organizational and personal change.* Highly collaborative; weaves visions with a pragmatic, timely initiatives; challenges existing assumptions.	Generates transformations over the short and long term.	None.
Alchemist	*Generates social transformation (e.g. Nelson Mandela).* Reinvents organizations in historically significant ways.	Leads society-wide change.	None.

From: Rooke and Torbert (2005)

Leaders can move through these categories as they develop and their ability to lead improves, so re-taking the LDP a few years later can indicate if a leader's action logic has evolved.

Interestingly, in a sample of 839 senior managers and 315 consultants (profiled between 1998 and 2009), David and his colleagues identified that 51% of the senior managers were Achievers, whilst the highest proportion of consultants were Individualist. Looking at the table above shows how different their perspectives are, and also how consultants could help senior managers move to the next level. David explained that Achievers are often seen as the 'finish line' for development because of the competitive nature of industry, and the need to keep a sharp focus on the bottom line. But an Achiever's success can be limited by impatience and lack of reflection, a tendency to dismiss questions about goals and assumptions as too philosophical, and a lack of focus on creative and lateral thinking.

Moving from Achiever, for instance, to the next level (Individualist) requires self-awareness and a greater awareness of other world views. The Individualist's focus of attention is on reflection, seeking independence, curiosity, which is expressed in the leadership characteristics of inquiry and reflection, seeing many points of view, and a focus on the systemic.

David also described the movement from what he termed conventional and post-conventional senior teams. The conventional team is characterised by linear, rational thinking and action that is associated with the Diplomat, Expert and Achiever. The transition into the post-conventional team is through the Individualist, which seems to make it an important ‘gatekeeper’ into the next level. The post-conventional team is associated with the Strategist and the Alchemist, and is characterised by complex, integrated thinking and action.

In moving from the conventional to the post-conventional senior team, David described the journey from linear rational thinking and action (characterised by processes and procedures, clarification of roles, controls to manage deviation from the plan) to complex, integrated thinking and action (characterised by the conversation moving into a creative space, release of creativity and innovation, a desire to experiment).

David identified two main developmental ‘energies’ for transitioning to the next level. These are negative associations with the current action logic (such as frustration, recognition of limitations, disillusionment) and positive attraction to the next stage (such as experiencing a taste of the next stage, cognitive recognition that it is needed, inner knowing). He described some of the strategies that could be used to develop into the next action logic type, including experimenting with new interpersonal behaviours, forming new kinds of relationships and taking advantage of work opportunities at the next desired level.

David’s presentation was well-researched and thought-provoking. For those interested in learning more about the Leadership Development Framework and using it in leadership transformation, Harthill run 3-day courses which includes training in interpretation of the Leadership Development Profile. Further information can be found at www.harthill.co.uk.

References:

Loevinger, J. (1976). *Ego development.* San Francisco: Jossey-Bass.
Rooke, D and Torbert W.R. (2005). *Seven Transformations of Leadership.* In Harvard Business Review, April 2005.

Using Profiling to Improve Workplace Performance

Lynne Hindmarch - ***Business Psychologist & TPF Committee Member***

Report on the February 2011 Psychometrics Forum

The two presenters for the morning session were a ‘double act’, discussing a joint in-company project from both the consultant’s and the client’s perspective. The theme of the presentation was Analytical Talent Management: Increasing the Odds of Hiring the Right Person.

Dr. Max Blumberg is a research fellow at the University of London, a corporate psychologist and founder of the Blumberg Partnership corporate consultancy. Max has developed an innovative evidence-based profiling approach that uses off-the-shelf psychometrics to benchmark an organisation’s workforce performance. This then drives new processes for recruitment, on-boarding, learning, coaching and employee evaluation specifically designed for performance improvement. His co-presenter was Dr Steve Langhorn, the Director of the Rentokil Academy, who pioneered the evidence-based recruitment process with Max. Steve has a doctorate in Business Administration, specialising in Emotional Intelligence, and the Academy already ran the biggest EI programme in the world. The EI competencies and their application are particularly important in Rentokil, which Steve described as a very sales driven organisation.

Max described his mission as making psychology useful, and in particular linking it to the bottom line. He is interested in using what he calls ‘analytics’ for attracting, developing and retaining high performers, whilst still retaining the softer skills (‘gut feel’). He began his presentation by asking how do we know **which** assessment tools predict high performance? In Rentokil with heavy recruitment costs, new hire costs, lost sales and lost productivity, the opportunity costs of selecting low, rejecting high, sales potential was between 1.5 and 3 times annual salary. The million dollar question was how to get better at hiring new people who look like potential high sales performers.

Rentokil was used as a case study to show how the process works. It had the advantages of a large global organisation (70 countries, 70,000 employees, 4 divisions) with the potential to try out different psychometrics and identify which added value. The question to be addressed was: How effective is the recruitment process in identifying high performers, who are likely to be engaged and have a reasonable length of service? At Rentokil quality and retention were an issue. They also needed people who learned very fast and were flexible.

Max and Steve showed that, in Rentokil, if the bottom group of sales people were as effective as the top group, this would drive up sales performance by 50%. The big question was how to track the source of the variation in performance. The sales managers came up with a number of possible reasons for the variation, including poor training, need for recognition and retention issues, but there was little agreement. Max and Steve also looked at previous research in this area in other sectors. They identified a range of issues that may cause performance variation, such as the resourcing process, candidate profiling, on-boarding, motivation, training, sales management, sales process – or was it something else? When asked, the sales managers identified the issues as being broadly around the resourcing process and candidate profiling.

Steve and Max analysed two internal populations where three psychometrics were used, to find out if any successful profiling was being carried out in the Group. They found that the test scores minimally correlated with sales performance, and the internal use of these tests was terminated. However, they were still looking for a profiling tool.

They set up a process which firstly explored the psychometric characteristics that top sales managers look for. These were divided into desired general traits (such as cognitive ability, conscientiousness, organised, confident, resilient, persuasive) and ‘patch specific’ desired traits (which were clustered around the hunter or farmer aspects of sales).

The next step that Max and Steve took was to search the market for the minimum number of tests meeting the following criteria: they measured the majority of identified traits, and they were peer-reviewed, preferably against sales forces. A number of tests claimed to measure their criteria, but Max and Steve posed the question: do they actually do so? They identified a battery of six tests that were peer-reviewed on a population similar to the Rentokil sales force, had no adverse impact, were cost-effective, available online in different languages, and provided the raw data for further analysis. These tests were measuring: strategic/tactical ability; interest in sales; cognitive ability; workplace motivators; customer orientation and personality. The aim was to identify which tests actually distinguished high from low performers, identify a ‘winning’ test, create a resourcing process around it and roll it out to all Rentokil businesses in all regions.

Six tests were conducted with both the UK and US sales populations (n=270), where sales managers had already ranked their sales teams. The results were analysed using binary logistic regression. There was an initial fear that all six tests would need to be used in recruitment; Rentokil only wanted to use one as these were frontline positions, not management. However, the results indicated that neither the verbal nor non-verbal tests gave incremental value, and the test that was most predictive was the personality test. The 'winning' test was then used in resourcing, firstly to identify the job/person specification, then to target candidates (using high trait-based ads) followed by screening by CV and telephone interview. Psychometric testing was carried out and the results sent to HR. This was followed by competency-based interviews and a case study, final interviews, hiring decision and offer. This approach has been implemented in every division in every region in Rentokil. The method has been to engage the workforce managers in the process, calibrate the test for that division, train recruiting managers, and roll out the process.

To date the performance improvements have been significant. Over a 12-month period US sales have increased by 32.9%; over a 3-month period, sales in the UK have increased by 17.6%; in The Netherlands by 17.8% and in France by 16.8%. The business benefits have also been significant. The approach is more likely to attract the right people and is cost-effective. From the HR perspective, it has meant training internal recruitment managers (thus lowering recruitment costs), more communication between HR and operations, and a credible process. There is now less dependency on external recruiters, a lower risk of litigation, and less reliance on individual interview skills.

Max finally posed some questions that people involved in recruitment might want to ask. How robust is my recruitment process? Am I using the right psychometric tools? Am I relying on interviews alone? Am I getting optimum value out of my resourcing process? Would I like to have real evidence that I'm recruiting effectively? (But he kept stumm about the name of the winning psychometric!)…..

Neuroscience and Psychometrics: Why The Gap?

***David Roberts* - Business Psychologist & TPF Committee Member**

Report on the May 2011 Psychometrics Forum

The Psychometrics Forum has taken its first bold steps into the murky waters of neuroscience. After more than 20 years of being content with psychometrics, we have now begun to wonder from where these facets, domains, traits, attributes, might emanate.

I do not mean this in any disparaging way: it is simply that the worlds of psychometrics and neuroscience seem to have had very little to do with each other in the last 20 or 30 years, and this view was roundly endorsed by Rita Carter in her presentation to The Psychometrics Forum at the Royal Overseas- League in May. Indeed, she admitted that in her book *Mapping The Mind* there was little reference to personality traits.

She said the anatomy of the brain influences and shapes the functions of the brain. And likewise, the function of the brain generates behaviour and influences and shapes the anatomy of the brain. It's a circular model. One example of this lies in musical ability. The frontal lobes of the brain have been identified as the area in which musical ability is primarily located. When – or if – that ability is exercised consistently, the area is enlarged, thus improving musical ability further.

But why should these scientific areas have been seen as separate entities, because they are in fact integral?

The brain can be divided into main areas: the *brainstem and the cerebellum* control basic bodily functions such as breathing, blood circulation and digestion. The *limbic area* houses the drives and urges, our deep-seated emotions, sex, anger and pleasure. The *thalamus* is the centre for sorting and controlling the sensory information from parts of the body and sending it to the cerebral cortex. The *hypothalamus* has many roles concerning conscious behaviour, emotions and instincts.

Describing it in this manner implies that these areas operate independently. Nothing could be further from the truth. In fact they all interact with each other (and with other parts of the brain not yet referred to), to produce what is easily the most complex organ in the body and one in which billions of neurons (microscopic nerve cells) receive signals or send them on.

But how do we know what these parts of the brain actually do? Although speculation about the brain's function goes back many centuries, little progress was made until the 1900s and in more recent times through anatomical imaging (giving information about the structure of the brain) and functional scanning (seeing how the brain works). These advances have enabled researchers to look at smaller parts of the brain. Hitherto, it was more a case of looking at the brain and making assumptions.

Rita Carter said that trying to link the physiology of the brain with character has a bad history. Phrenology in particular, turned out to be largely nonsense – you cannot account for complex behaviour by examining bumps on the human skull. This is one historical reason for the division between the study of psychometrics and neuroscience.

But: recent advances have changed all that, and recognition of that was one of the main reasons for mounting this one-day seminar.

Much research has been devoted to looking at *similarities* between brains, but now scientists are able to look at differences. Progress has been made in identifying parts of the brain that are thought to relate to The Big Five personality characteristics. These advances have enabled scientists to identify areas of the brain that deal with love, religious belief, altruism, and moral judgements for example.

Relating this to our work as psychometricians, we have to ask the question: when will practitioners be able to take advantage of this 'new science'?

First, we have to understand that scanning is very expensive. A scanner at UCL costs around £10,000 per hour. There is a move towards smaller and cheaper scanners but it would be a brave – and rash – person to say that a commercially accessible scanner would be available for psychometric practitioners in the foreseeable future.

Then there are of course the ethical considerations to take into account. We all know how guarded and suspicious some people can be towards doing a simple paper-and-pencil test!

Rita gave the seminar a good start using clear and unambiguous language in making an extremely complex subject understandable to her audience.

Footnote: *As if to further endorse Rita's claim about progress, today there is news of a further scientific breakthrough. Researchers at Duke University, North Carolina, have found that a section of the brain called the* dorsal anterior cingulate cortex *(ACC) is responsible for weighing up reward against cost in any given situation. When a certain threshold is reached the brain gives a signal to throw in the towel. I sense another seminar there…*

Approaches to Developing People – A Perspective

Rab MacIver – Saville Consulting

How we think about developing people can be influenced by the type of psychometric that is used, as well as both the general model of development that is being applied and our beliefs about how people should be developed.

Here is a selection of popular models for development:

1) Remedial models – "You are not very good at this, so here is where you should focus your efforts"
2) Requirement models –" This is a very important requirement to be successful in this job, so you should focus efforts here"
3) Strengths models – ""You are good at this, so focus your efforts here. Build on your strengths and play to your advantages"
4) Motivational models – "You are interested in/motivated by this, so you may find it more rewarding to focus your effort on that which appeals to you most"
5) Derailment models –""This may limit/derail/cause problems for you and you should try to address this"

When thinking about any type of development intervention, it can be useful to consider which of the above approaches are being favoured and how successful they are likely to prove.

Conversations That Matter

For all of these models, it is important to understand how the characteristics assessed link to performance at work. Without this understanding the conversation is less likely to be focused on what really matters for improving performance. It is common for users of psychometrics in development to say that "psychometrics are good at starting important conversations". True, starting conversations does matter. But the development outcome is likely to be even more effective if the right conversation is had which results in improvements in performance at work. We would argue that it is not just a matter of understanding how a questionnaire scale links positively to predict a particular competency or other specific outcome variable, but also how that scale links to other competencies (particularly the negative links to other scales; for example, a personality scale such as "Competitiveness" correlates positively with achieving results at work, but is a negative correlate of team working and interpersonal sensitivity).

Critically, it is also useful to understand how any scale (and the competency it is predicting) relates to overall performance and potential at work. It is particularly important to understand how a tool links to performance where the relationships are complex and high scores, for example, are likely to be associated with both positive and negative outcomes (e.g. as in the Hogan Development Survey). It is important that these links are not just hypothesised but empirically validated. Indeed, in the development of Wave, we have favoured improving the validity of measures through a validation-based questionnaire construction approach.

Combining Development Approaches

Question: Which of the five development models above is best for enhancing the effectiveness of developmental activities?

Our Answer: All of them in combination.

A weakness or limitation (remedial model) may be hard to develop, but it will be considerably easier if the individual is interested in this area (motivational model) *and* it matters for their job (requirements model). Trying to further develop or enhance a key strength or self-perceived talent is likely to be more difficult if there is no motivation or interest in that area. So while we would generally advocate a strengths-based approach to development, we would also argue that this needs to be done in the context of the individual's motivations *and* how important developing that area is in the context of the job, organisation or the individual's career.

If someone can understand not only the positive side of their profile, but in the same breath understand why their strengths could be overplayed and have unwanted consequences, this can help them better understand the impact they have at work and use their strengths more wisely. Providing users with an improved perspective on the empirical validity is a particularly active component of Saville Consulting's long-term research and development programme.

Building on strengths (as well as managing limitations) and overplayed strengths are integral to Saville Consulting Wave Development Report and understanding the complexity of positive and negative associations with performance, based on empirical validity evidence will be captured in a new Wave report called Reflections available from the start of July.

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Is this why some countries do better?

Norman Buckley **-** normanb@redfieldconsulting.com

Some countries shoot the lights out – they're more economically and culturally successful than others. Fact. Some nations are just "happier" than others. Fact. For example, Germany is the strongest player in the European Union, while its neighbour Hungary is sadly downtrodden, suffering one of its worst recessions. It's no secret that Chinese people feel less in control and more pessimistic while the Dutch are happy and self-assured. Is there a link between the core personality and self-worth of a person and the success of the country they are from?

We recently studied the Core Self Evaluation (CSE) scores of 23 nations, using a Facet5 database of 50,000 case studies as a proxy, and discovered yes – there is a link. Facet5 is a commercially available Big 5 questionnaire (facet5.com, available in different languages). CSE is a construct founded by Dr Timothy A. Judge[i], professor of Management at the University of Notre Dame, which describes a combination of Self Esteem, Self Efficacy, Neuroticism and Locus of Control (the extent to which individuals believe they can control events that affect them). CSE scores reflect job and life satisfaction, performance, career decisions, income, response to feedback, social skills, academic achievement and entrepreneurial orientation. The CSE Scale has a strong relationship with core personality – as measured by Facet5.

There is limited available global data on CSE scores. What we do have, however, is access to the Facet5 database. The Facet5-derived score accounts for close to 60 per cent of the variance in original CSE scores (Multiple R = 0.752 (sig. .000). So the research used in this study is based on CSE scores estimated from national character scores from Facet5. We also compared these scores to Hofstede's national culture scores and a number of socio-economic indices (more on that later).

Put simply, we took Facet5 results from individuals and translated them into estimates of CSE for countries. This then tells us about the way a country functions, its culture, its economics and even its politics.

What we found

As mentioned, the Facet5 national database contains approximately 50,000 cases in 23 countries. We computed estimated CSE scores for each of the 23 countries; the table below shows the estimated CSE scores for all 23 countries, from the highest to the lowest.

Country	CSE Score
Germany	0.50
Netherlands	0.37
Ireland	0.07
Norway	0.07
Denmark	0.06
Poland	-0.01
Canada	-0.03
UK	-0.04
India	-0.07
New Zealand	-0.07
Bulgaria	-0.13
USA	-0.16
Australia	-0.17
Greece	-0.18
Malaysia	-0.25
Korea	-0.27
Singapore	-0.29
Japan	-0.31
Lithuania	-0.31
Brazil	-0.32
Hungary	-0.35
Hong Kong	-0.44
China	-0.50

The table suggests people in Germany, the Netherlands, Ireland, Norway and Denmark have a more optimistic and self-assured approach to life. Conversely, people in Lithuania, Brazil, Hungary, Hong Kong and China are more self-doubting and pessimistic. This got us thinking, are these suppositions supported by other data?

The answer, again, is yes. We compared the CSE scores above with Hofstede's Cultural Dimensions and key demographic and socio-economic measures. One of the most influential people in the analysis of national culture is Gert Hofstede, a Dutch organisational sociologist.[ii] Hofstede measures five different dimensions of national culture, called Culture Indices; four of them correlated with our countries' CSE scores…

1. Power Distance (PD). PD is described by Hofstede as "the extent to which the less powerful members of organisations and institutions (like the family) accept and expect that power is distributed unequally". Countries with a high CSE score have a lower PD, (r=-0.53/0.01) suggesting a more even distribution of power and influence. Social

class and hierarchy are considered less important, while citizens feel more capable of controlling what happens in their society. Countries with a low PD score include Denmark, New Zealand, Ireland and Norway. PD is higher in Malaysia, China, India and Bulgaria.

2. Individual versus Collective. This is defined by Hofstede as "the degree to which individuals are integrated into groups." In individualistic countries, everyone is expected to look after him/herself. Collectivist societies, on the other hand, encourage the forming of strong groups, with extended families offering protection in exchange for unquestioning loyalty. (Meaning if your mother-in-law says jump, you say "how high".) Countries with higher CSE scores are more individualistic, their people looking after number one (r=0.80/0.00). The USA, Australia, the UK and Canada are strongly individualistic. More collective countries include Korea, Singapore, China and Hong Kong.

3. Masculinity versus Femininity. Countries with higher CSE scores are significantly more "feminine" (r= -0.39/0.06) – they do not see some roles as inherently male and some as female (in other words, sexism is a no-no). High CSE societies (such as Germany, Netherlands, Norway) see both men and women as being equally capable of helping, nurturing and cooperating.

4. Long Term Orientation. Long Term Orientated-countries value thrift and perseverance, whereas Short Term Orientated-countries respect tradition, social obligations and the importance of "saving face". Countries with a high CSE scores (Netherlands, Germany) take this shorter-term view (r=-0.64/0.01).

We also looked at socio-economic indices and discovered that higher Gross Domestic Product (GDP) is significantly associated with higher CSE (r= 0.41/0.06). Same for the Big Mac Index, a purchasing power parity index created by *The Economist*. It's based on the idea that a single dollar should buy a similar basket of goods in each country; the index shows the degree to which that is true or false. In our analysis, Norway, Denmark, the UK and the USA have the highest Big Mac Index while China, Malaysia, Hong Kong and Bulgaria had the lowest (r=-0.716/.000). Interestingly, there was no data available for India thanks to its extremely low beef consumption – cows are sacred and off the menu for Hindus.

We looked at social indices, such as freedom of the press, and its relationship to CSE. According to Reporters without Borders[iii], countries with the most unrestricted press in the world are Norway, Ireland and Denmark, with Netherlands close behind. A free press correlates to a strong CSE (r=0.519/.013). Meanwhile, press in India, Malaysia, Singapore and China are the most restricted in my sample.

Finally we looked at an overall index of National Happiness as defined by Ruut Veenhoven[iv] and again found, perhaps unsurprisingly, that higher CSE was linked to greater "happiness" (r= 0.45/0.03). Denmark, Norway, Canada and Australia are happy with their life whereas Bulgaria, Lithuania, Hungary and India feel things could be a lot better.

What does this all mean?

We now know that CSE is related to core personality factors as measured by Facet5, a Big5 questionnaire. We know that we can estimate CSE scores from Facet5 profiles. We know that countries differ in their CSE scores. We also know that, when averaged across a large sample, countries show small but reliable differences on Facet5 factors and consequently on CSE. Countries such as Germany, Netherlands, Ireland, Norway and Denmark have a high Core Self Evaluation. So, people living there, in general, feel more in control of their destiny and confident about their future. Countries such as China, Hong Kong, Hungary and Brazil are less confident and optimistic – and, surprise surprise, their CSE is lower.

In countries with a stronger Core Self Evaluation, wealth and power is spread more evenly. People are expected to look after themselves, but they feel more empowered. The press is free to comment. Those societies are less concerned over whether a role is fulfilled by a man or a woman. People are happier and generally more positive about their place in the world.

All this begs the question: what came first? Is it the more confident and assured personalities of the people that create an egalitarian, confident and wealthy society… or is it the wealth and freedom of a country that leads to confidence and self-assuredness in its people? Our research does not answer this. In fact, it would be a very sophisticated and complex long-term study that would find a causal link (I'll be the first in line to read it).

But from this study we can talk in terms of positive psychology. Forgive me for being an optimistic Westerner, but if we can measure and elevate a nation's CSE, a range of fantastic outcomes might follow. A lower CSE score could be lifted using Cognitive Behaviour Therapy (CBT) or by applying Seligman's "Learned Optimism"[v]: while people may differ in terms of how optimistic or pessimistic they are at heart (their "set point"), they can learn to be more optimistic using the ABCDE[vi] model.

How could we roll this out? Schools would be a good place to start. Some schools offer ethics classes instead of religious education (RE) classes. Perhaps we could launch classes in optimism. Some schools – like Geelong Grammar in Australia – have already incorporated CBT into their curriculum. Three counties in Britain – Hertfordshire, Tyneside and Manchester – have incorporated the concepts into their Young Offenders Programmes. The effects could be profound, for the individual student in the short term and for the nation in the long-term. The result? Happier, wealthier and more egalitarian societies – with higher CSE scores. Naturally.

This article is based on a presentation by the author to the European Conference on Positive Psychology, Copenhagen, June 2010.

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ii. Hofstede, G. (1967-2009). Geert Hofstede™ Cultural Dimensions. Retrieved from http://www.geert-hofstede.com/

iii. Reporters Without Borders, Worldwide Press Freedom Index, Retrieved 19 May 2010 from http://en.rsf.org/press-freedom-index-2009,1001.html

iv. Veenhoven, R.,*World Database of Happiness*, Erasmus University Rotterdam. Available at: http://worlddatabaseofhappiness.eur.nl Accessed at: 19 May 2010

v. Seligman, Martin (1990). Learned Optimism: How to Change Your Mind and Your Life. Free Press

vi. The initialism stands for (A)dversity, (B)eliefs, (C)onsequences, (D)ispute and (E)nergy. This outlines a 5-part process for producing a positive outcome from a negative event

Do Managers Need to be Agreeable?

***Dr. Hugh McCredie* – TPF Vice-Chair**

This is the forth in a series exploring whether Big Five personality factors contribute to managerial performance (see McCredie, 2010a, 2010b, in press).

What is agreeableness?

Woods and Hampson's (2005) single item Big Five agreeableness measure reads:

> *High scoring description* Someone who is generally trusting and forgiving is interested in people, but can be taken for granted and finds it difficult to say no
>
> *Low scoring description* Someone who is forthright tends to be critical and find fault with others and doesn't suffer fools gladly

DeYoung et al., (2002) linked agreeableness, and also conscientiousness and emotional stability, with higher production of the neurotransmitter serotonin. DeYoung et al. (2010) associated three brain structures with agreeableness, predicating sensitivity to intentions and mental states of others.

Agreeableness is the low scoring pole of Cattell's 16PF Form A second order factor 'independence' which has five narrowband components in descending order of importance:

Agreeableness pole narrowband scales		***Independence pole narrowband scales***	
Submissive	humble, mild, easily led, accommodating	*Dominant*	assertive, aggressive, stubborn, competitive ,bossy
Practical	concerned with down to earth issues, steady	*Imaginative*	absent-minded, absorbed in thought, impractical
Group-oriented	a joiner and sound follower, listens to others	*Self-sufficient*	resourceful, prefers own decisions
Trusting	accepting conditions, easy to get on with	*Suspicious*	hard to fool, distrustful, sceptical
Conservative	accepting traditional ideas	*Experimenting*	liberal, critical, open to change

After IPAT (1986, pp. 25-30)

Are managers agreeable?

Bartram (1992) and McCredie (2010c) reported personality profiles of senior British managers. Both used 16PF Form A and the latter corrected scores for faking. 16PF Form A second order independence/agreeableness has a 'good' level of equivalence with similarly named 16PF5 global factor, but the latter narrowly failed to achieve an 'acceptable' level of equivalence with NEO PI-R agreeableness (McCredie, 2009). Interestingly, NEO assertiveness, which correlates well with 16PF5 dominant, is a facet of NEO extraversion, not agreeableness.

Bartram's 1776 managerial candidates had a mean agreeableness score at the 11th percentile, whilst my 446 appointed managers were at the 25th percentile. Additionally, inferred scores of 17 high profile CEOs (Petersen et al., 2003) were around the 32nd percentile. Thus, on average, managers do *not* score highly on agreeableness. With 16PF measures there is a clear preference for the opposite pole of independence.

Does agreeableness predict overall managerial performance?

There is a marked absence of published evidence for agreeableness as a predictor of managerial performance. Neither the landmark meta-analysis by Barrick et al. (2001) nor the more selective one by Hurtz and Donovan (2000) found such a link. However, I reported correlations between 16PF Form A independence (low agreeableness) and both ratings of overall effectiveness and level of seniority achieved (McCredie, 2010c, p. 25). I also found links between independence and supervisor ratings for nine out of 16 managerial competencies (p. 74). The link was particularly strong with ratings in the results orientation skill cluster, notably for the competencies of initiative, tenacity, planning and control.

Do managers need to be agreeable?

The short answer is that there is no clear requirement for managers to be agreeable. Moreover, there is strong evidence with 16PF measures, that the independence pole of independence/agreeableness both characterises managers and is predictive of performance. For these reasons, when using 16PF measures in managerial selection, I would look for as strong an independence score as possible and at least at the 25th percentile.

Beyond 16PF measures, the case for or against agreeableness as a desirable managerial trait is not yet clear. The most that can be said is that the small sample/high profile study by Peterson et al. hints that *low* agreeableness may be a managerial asset. If other, more substantive, Big Five measures fail to establish connections between low agreeableness and managerial success with bigger samples, it may be that the 'factor space' occupied by 16PF independence is uniquely beneficial to management selection adding to the value of such instruments.

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