

# PSYCHE

The Newsletter of  
The Psychometrics Forum



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**You will find information about forthcoming events, speakers, the origins of the group and much more.**

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Spring	29 <sup>th</sup> February	Copy due 10 <sup>th</sup> February

## A Few Words from your Guest Editors



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Dear Reader

Welcome to the Winter/Spring edition of Psyche! We are guest-editing this edition whilst Adrian Starkey's work commitments keep him out of the country (and, luckily for him, away from our chilly weather).

Two events are reported in this edition. Firstly, the September meeting of the Forum on 'Leadership – Transactional and Transformational', where the speakers were Dr. Adrian Atkinson of Human Factors, and Professor Beverley Alimo-Metcalf and Dr John Alban-Metcalf. Secondly, the November meeting of the Forum on 'New Frontiers in Psychometrics 2010', hosted by our Vice-Chairman Hugh McCredie. This event was the third in what has become a popular annual review of new developments in the field. The fourth event is scheduled for November this year.

This edition also includes a review by Jo Maddocks and Rory Fidgeon of data collected by JCA (Occupational Psychologists) Ltd on Emotional Intelligence in the working population over the last 10 years, and key questions arising from the data.

Our LinkedIn TPF affiliate group is now well past the 1000-member mark and continues to grow. The contributions are as lively as ever, with debates on whether psychometric testing has stagnated, and the predictive validity of trait versus type approaches being particular popular. TPF LinkedIn is a good source for cutting edge debate on psychometrics, and also an excellent starting point for anyone who has a query or wants advice – help is always at hand!

Just a reminder - past editions of Psyche can now also be found as PDF downloads on our website. Browsing this archive provides a rich source of information on Forum topics over the years – currently all the way back to February 2002.

Please feel free to drop Adrian Starkey a line with feedback or thoughts for future features or contributions. Adrian can be contacted on [adrian@xlr8talent.com](mailto:adrian@xlr8talent.com).

## **Forthcoming Forum Meetings**

### ***Wednesday 11<sup>th</sup> May 2011: 'Neuro-science: the Brain and Personality'***

*Rita Carter & Professor Paul Brown*

Interest in neuro-science is ever increasing and technological advances are starting to shed new light on the links between human behaviour and the workings of the brain. This Forum aims to guide delegates through the complexity of the research on the physiological basis of personality and the Big 5, towards potential practical applications in the future. Speakers will include Rita Carter, the science writer, lecturer and broadcaster, who specialises in the human brain, and Professor Paul Brown, who holds a number of senior academic and public posts, including Visiting Professor of Organisational Neuroscience at London South Bank University.

### ***Tuesday 23<sup>rd</sup> June 2011: 'Personality, Leadership and Organizational Effectiveness'***

*Professor Bob Hogan & Professor Peter Saville*

Building on the success of his 2010 presentation to The Psychometrics Forum on personality, performance and the Hogan Series, we are delighted that Dr Robert Hogan is making a return visit to address us again. The afternoon session will be a topical delivered by Professor Peter Saville, International Chairman of Saville Consulting.

### ***Wednesday 21<sup>st</sup> September 2011: Topic to be confirmed***

Possibly on the suitably Olympic theme of Psychology & Psychometrics in Sport.

### ***Wednesday 23<sup>rd</sup> November 2011: 'New Frontiers in Psychometrics'***

This has become a popular annual event with speakers who are at the leading edge of developments in psychometrics. A date for your diaries – Some outstanding speakers are being arranged and further information will follow nearer the event.

***With all of these events please keep an eye on most recent developments on the News & Events Section of our website:***

***<http://www.psychometricsforum.org/>***

# Leadership: Some New Perspectives and Measurements

*Two reviews of The Psychometrics Forum Event*

*15th September 2010*

## Authentic Transformational Leadership



**Dr Adrian Atkinson**

### *Introduction*

Through many years of work with charismatic business leaders Adrian has developed his fascination with the entrepreneur into an area of expertise. He has developed a new approach to identifying the wealth creators in companies. This particular specialism led to him being selected as the lead expert and commentator in the BBC series 'Mind of a Millionaire'. He appeared on Richard Quest's programme on Wealth Creation for CNN, was a lead speaker at the Entrepreneur Summit in London and presented at the Employee Benefits Summit in Monte Carlo in June this year. Most recently he appeared on Channel 4's election programme 'Britain's Next Boss'. He has written many articles in national papers and European business magazines.

Co-Founder in 1983 of business psychology consultancy, Human Factors International, Adrian Atkinson launched the day's event by taking us into the personalities and minds of entrepreneurs and the top business leaders of the day. He shared some of his findings with us:

### *Entrepreneurs*

- Cannot select people
- Or run a business personally – they don't want to be a CEO
- They have no concern for status, they don't have MBAs
- they just want to be in control

**Women entrepreneurs** are slightly different. They:

- start 10 years later than men
- do not come from a thriving early family
- meet a role model when they are 7-14, who unlike their family is successful
- try and become that role model
- when this happens they are happy

By contrast, male entrepreneurs are never happy, because they are used to being marginalised (40% are dyslexic).

## **Leaders**

Adrian gave us accepted definitions of Transformational, Authentic and Genuine Leadership:

### **Transformational Leadership**

- Inspiring a shared vision  
*to perform to higher levels of achievement*
- Intellectual stimulation  
*challenging the process; question paradigms*
- Individualized consideration  
*enabling others to act and stretching a persons responsibility*
- Idealized influence  
*modelling the way through reinforcing behaviours*

### **Authentic Leadership** (Avolio, Walumbwa and Weber, 2009 )

- *Balanced Processing*
- *Internalised Moral Perspective*
- *Relational Transparency*
- *Self-awareness*

Non Authentic behaviour comes from *Personality* – e.g. high power motive, high narcissism, low emotional stability, high self-confidence; and from *Situational* factors – e.g. alienation and exposure to negative peer groups.

### **Genuine leadership**

- *Combines these 8 factors*

### **Developing Genuine Leaders**

Adrian reminded us of the biggest business disasters in recent times, from Enron to the current banking downfalls, which was a failure of leadership by individuals and groups of people, rather than of the system.

The top team of the largest companies, including non-executive directors, is never rigorously assessed; they are selected by recommendation, referral and interview.

HFI have put together a framework to assess potential leaders, and candidates undergo 4 hours of tests. These comprise the 16PF and a critical thinking measure they have developed themselves, called the HFI AST. Sadly time did not allow for us to go into the latter.

Ann Rodrigues – TPF Committee Member [ann@acer-hr.co.uk](mailto:ann@acer-hr.co.uk)

# Transformational Leadership Questionnaire

## Introduction

Where Adrian Atkinson took us through characteristics of top leaders, people in the news, our afternoon speakers, Professor Beverly Alimo Metcalfe and Dr John Alban Metcalfe, looked at leaders further down the hierarchy, what they call 'nearby' leadership.



**Prof Beverly Alimo Metcalfe**



**Dr John Alban-Metcalfe**

Professor Beverly Alimo Metcalfe teaches at Bradford and Leeds University, and is Chief Executive of Real World Group, which she co-founded with her husband and business partner, Dr John Alban-Metcalfe. In 2000, they undertook the largest-ever single study of leadership, which led to the development of three diagnostic psychometric tools used widely by public and private sector organisations: (Engaging) Transformational Leadership Questionnaire (TLQ)™ 360-degree instrument, Embracing Diversity Inventory (EDI) and Leadership Culture & Change Inventory (LCCI).

Beverly and John addressed the Psychometrics Forum on the research and development of these instruments.

**Elizabeth Harrison**, a member of the Psychometrics Forum, kindly reviewed the event.

Beverly began her stimulating talk by taking us on a 'whistle-stop' tour of her team's key findings from their study of all the available leadership research:

In the early days - data was biased towards characteristics found in US military organisations (primarily amongst US white males).

In the 70's and 80's : **visionary leadership** emerged (see Marshall Sashkin) after the recession; as well as **charismatic/ passionate leadership** which promoted change through creating tension between 'now' and 'the ideal' (see Jay Conger) and **transactional and transformational leadership** (see Bernie Bass and the MLQ – Multifactor Leadership Questionnaire).

Post 9/11 and Enron etc - the **dark side to heroic/charismatic leadership** and its potential 'toxicity' was researched ("*individuals who destroy the...people and... organisations they are responsible for managing ... for personal gain / self-aggrandisement*" Lipman-Bluman) and Tosi (2004) investigated CEO charisma and company performance , finding zero correlation. This was aligned with the concept of '**nearby, day-to-day' leadership** as promoted by Jim Collins (*Good to Great*, 2001) - only 11 leaders from his study led organisations which went from good to great and sustained the success beyond 15 years. These leaders were not 'charismatic', but resolute, with deep personal humility. Beverly was delighted that "*heroic leadership has had its day*" and that "*It's no longer about 'I', but about 'we'*".

### ***Meeting the leadership challenge***

Beverly summarised the current leader's challenge as "how to increase their colleagues' effectiveness without damaging their motivation or their well-being". Research shows that 65% say that the most stressful aspect of any job is 'the boss'. The new leader is successful if s/he can create a high morale/low stress working environment which leads to high performance and is typically achieved by 1) giving staff autonomy/control, 2) ensuring clarity of objectives and priorities and 3) offering social support (including feedback).

### ***Engagement (not burnout)***

Creating the appropriate culture is critical in order to engender employee engagement, as opposed to burnout (which Maslach suggests is the polar opposite of employee engagement - see Maslach Burnout Inventory). Engaging ways of increasing performance include giving people a **sense of meaning and purpose; aligning personal/company values;** discovering and **working with individuals' strengths** and satisfiers. Research shows that employees who are highly engaged with their roles also give increased customer satisfaction.

The Real World Group has been given 3 years' funding to research 'nearby' leadership initially in the public sector (NHS and local government) and later in the private sector (FTSE 100). They set out to make their research 'inclusive', involving staff (across gender /age / level / different organisations) and not just the leaders themselves in determining how 'effective leadership' is defined.

### ***Engaging Transformational Leadership***

The research into 'engaging' leadership led to the development of the TLQ (the 'engaging' Transformational Leadership Questionnaire) – a psychometric instrument which measures 14 scales in 4 clusters as follows (*see 2008 CIPD report , page 12 – full reference below*):

1. **Personal qualities and core values** – being honest and consistent, acting with integrity (including being open to criticism both when under pressure and when not).
2. **Engaging individuals** – showing genuine concern; being accessible; enabling; encouraging questioning.
3. **Engaging the organisation** – supporting a developmental culture; inspiring others; focusing team effort; being decisive.
4. **Moving forward together** (with all stakeholders) – building shared vision; networking, sharing ideas; resolving complex issues (big picture + detail, convergent + divergent thinking) ; facilitating change sensitively (promoting stability if necessary).

In summary, this new model of engaging transformational leadership is characterised by:

- Leader as servant and partner
- Leadership as a social process ('Ubuntu' – "I am, because we are")
- Leadership is about:
  - Connecting people and ideas, through.....
  - A shared vision
  - Co-ownership
  - Co-design – empowering partners in implementation.

Beverly added that 'hard stuff' is also required in 'nearby' leadership. To create shareholder value, we need both **transactional** aspects (boss => staff) - 'non-negotiables' which need to be accepted and about which the leader has to be straight and honest, telling people the reality and also **transformational** (staff => leaders), when the leader allows staff to influence what needs to be done and identifies the changes needed to make things happen.

### *Applications*

A number of interesting case studies were cited, including Merseyside Police who use TLQ to identify specific departmental team training needs and to target the training. This has resulted in cost savings of £12m out of a budget of £300m.

Real World Group was also commissioned to develop The Board Leadership Quality 360 instrument, by the Audit Commission who hold the Intellectual Property (shortly to lapse).

### *Now for the numbers...*

John Alban-Metcalf ended a full and illuminating afternoon by presenting the reliability and validity data for the TLQ. It was a very fast run-through due to pressure of time, so rather than attempting to go through all the research studies here, we will summarise by observing that the background research appears extremely rigorous, and statistically robust. John will be happy to provide more data for those interested.

Elizabeth Harrison [elizabeth@allbeingwell.com](mailto:elizabeth@allbeingwell.com)



### Note:

*Much of the content of Beverly and John's presentations is contained in the 2008 CIPD report: Engaging leadership: Creating organisations that maximise the potential of their people, which Beverly authored. This is available as a free download from [www.cipd.co.uk](http://www.cipd.co.uk)*

# New Frontiers in Psychometrics

## *Review of The Psychometrics Forum Event – 25<sup>th</sup> November 2010*

What follows are my personal impressions of the varied contributions to what was, in effect, our third annual round-up of research and development in the psychometrics domain:

**Rob Feltham and Melanie Brutsche** of Cubiks reported their attempts to develop a personality questionnaire (CIPQ), based on Cattell's sixteen factors, which had greater compatibility with the Big Five model. This was partially achieved by the introduction of a new narrowband scale, Striving, which combined with the equivalents of 16PF5 Rule-Consciousness and Perfectionism to yield the broad second order factor of Conscientiousness. Secondly, CIPQ substituted two very narrow factors, Complex Thinking and Distracted for the equivalent of 16PF5 Abstractedness to achieve improved correspondence with Big Five Openness.

**Chris Dewberry** introduced a new concept psychometric, DASA, a measure of self-regulation, as an alternative to personality and ability scales. He described traits and abilities as hierarchies of non-observable constructs measuring individual differences grounded in genetics or early experience and relatively fixed in adult population. Meta-analyses revealed how such constructs predicted variations in job performance of around 10 and 26 per cent, respectively.

In contrast, self-regulation was concerned with the control of impulses and deferred gratification. The core processes of self-regulation- Proactive Cognition, Deciding and Action- were essentially habitual and, therefore, more amenable to development. Criterion-related validation of DASA is at an early stage, but it has already emerged as a good predictor of educational achievement. Even more promising, Dr Dewberry reported that the combination of an ability measure (Ravens) and the Proactive Cognition scale of DASA predicted 50 per cent of the variation in sales performance.

Incidentally, I was interested in Chris's passing reference to a new paper reporting on the neurological correlates of four of the Big Five factors. (DeYoung et al., 2010).

**Jo Richardson** presented two pieces of research on teamwork. The first presentation recounted the development and validation of her Real Team Scale, a metric to determine how far groups of individuals perceive themselves as belonging to a real team. Jo reported that the deficiency of such perceptions related to a variety of negative outcomes, e.g. stress, error, injury, poor client relationships. As well as a useful diagnostic for individuals and groups, the instrument has potential as a control variable in future team research.

Dr Richardson's second presentation centred on variations in Big Five personality factor scores amongst team members. Aston Business School research concluded that homogeneity of Conscientiousness scores associated with higher team performance, whilst higher team average scores for Extraversion predicted team member satisfaction.

**Rob Bailey** gave us a round-up of four research studies involving instruments from the OPP portfolio:

1. Investigations into the factor structure of 16PF5 implicated 10 of the primary scales in an overarching General Factor of Personality, the 'Big One'. However, increasing the granularity of personality measures from fine to broad loses predictive power.
2. A further 16PF5 study found positive associations for Extraversion and Self-Control, and a negative association for Anxiety, with work engagement.
3. Correlations were found between IPAT's Emotional Judgement Inventory and US police scores on the Opinions Towards Mental Illness Scale. Of particular value was the officers' ability to identify the emotions of others.
4. With MBTI, researchers found greater differences in the distribution of types amongst jobs than amongst different European nations.

**Rob Feltham** returned for the final presentation. He demonstrated how adapting Cubiks 360-degree Feedbacks Systems from a ratings- to a ranking-based format resulted in quicker completion and clearer identification of relative strengths and development needs.

Responses of those attending to all of these presentations has been very positive and we are encouraged to organise a similar event in 2011.

***Dr Hugh McCredie – TPF Committee Member***

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# A Decade of Emotional Intelligence

## *Trends and implications from the 'ie' questionnaire*

**Jo Maddocks and Rory Fidgeon, JCA (Occupational Psychologists) Ltd.**  
[www.jca.eu.com](http://www.jca.eu.com) © JCA 2011

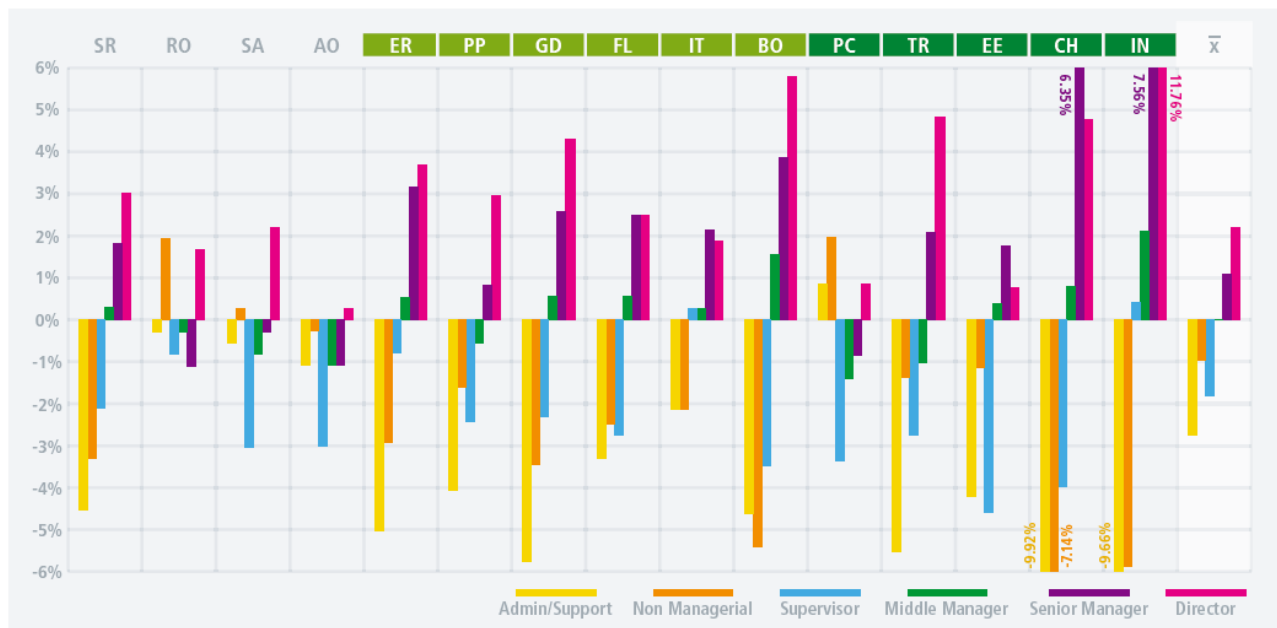
Over the last ten years JCA have collected data on the Emotional intelligence of over 12,000 working individuals who completed the 'ie' (Individual Effectiveness) Questionnaire. Based on this data, we are now able to present a picture of Emotional Intelligence within the working population and consider some key questions:

- Are senior managers more emotionally intelligent?
- Can EI be developed and are these changes sustainable back in the workplace?
- Are there differences in EI between occupational groups?
- Is there an EI difference between men and women?
- Does EI change with age?
- How has EI changed over the last decade?

All the results listed and described are statistically significant at the  $p < 0.01$  level (99% confidence).

## Are Senior Management job holders more emotionally intelligent?

Table 1 Job level: percentage above or below the mean average score for the total population



**Key** SR = Self regard RO = Regard for others SA = Self awareness AO = Awareness of others x = Mean average

**Self Management**  
 ER = Emotional resilience GD = Goal directedness IT = Invitation to trust  
 PP = Personal power FL = Flexibility BO = Balanced outlook

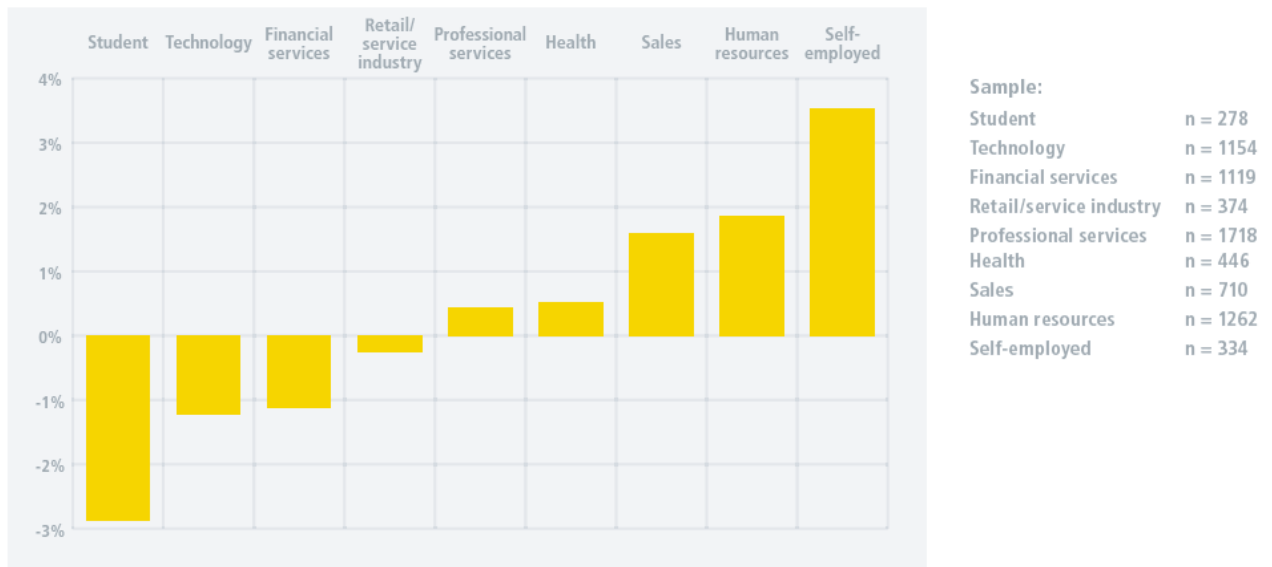
**Relationship Management**  
 PC = Personal connectedness EE = Emotional expression IN = Interdependence  
 TR = Trust CH = Conflict handling

**Sample:**  
 Level 1 Directors n = 1410  
 Level 2 Senior managers n = 2197  
 Level 3 Middle managers n = 3063  
 Level 4 Supervisors n = 405  
 Level 5 Non managerial n = 1127  
 Level 6 Admin/support n = 593

- The main finding from these results is that higher-level job holders score significantly higher on EI in eleven of the scales.
- For example, at the top level, Directors score significantly higher than senior managers in areas of 'Self management' such as Self awareness, Personal power, Goal directedness, and Balanced outlook (less pessimistic).
- Senior managers score significantly higher than middle managers in areas of 'tough mindedness' e.g. Emotional resilience, Goal directedness, Balanced outlook (less pessimism), Conflict handling and Interdependence (less dependent).
- It is perhaps concerning that aspects of self esteem (Self regard and Emotional resilience) are particularly low in lower level jobs.
- These results suggest that the greatest room for improvement is in non-managerial job groups, despite most investment being in senior managers (Scott-Jackson 2006).

## Are there differences in EI between occupational groups?

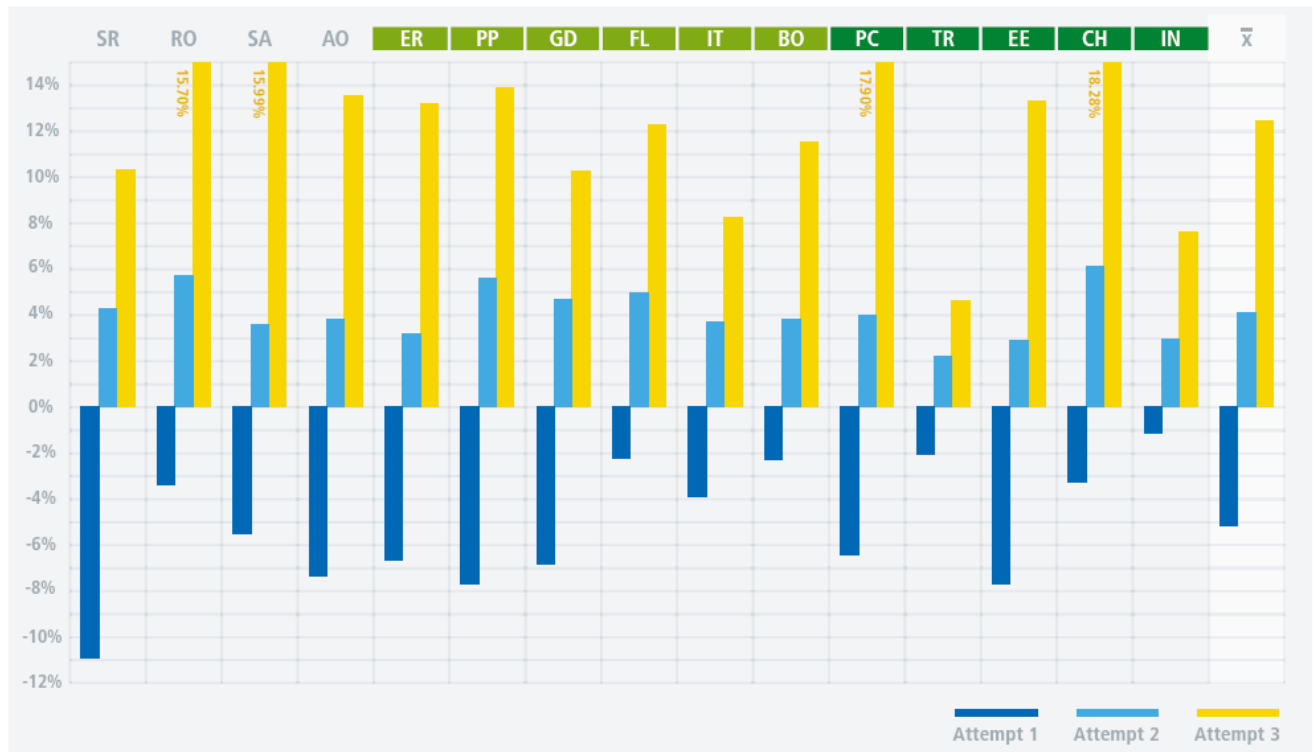
Table 2 Job sector: percentage above or below the mean average score



- The Health sector score higher on scales to do with building positive relationships.
- The Sales sector score higher on scales to do with being self assured and focused.
- The Human Resources sector score higher on scales to do with interpersonal management.
- The Self-employed group score higher on scales to do with understanding others and making things happens.
- The lowest overall EI score was for students who had significantly lower scores in nine scales. Many of these scales reflect having lower self esteem, confidence and interpersonal skills.
- The Technology and Financial sectors scored lower on many of the interpersonal aspects of EI.
- Self employed people score somewhat higher on average than any other group.

## Can EI be developed and are these changes sustainable back in the workplace?

Table 3 Attempt: percentage above or below the mean average score



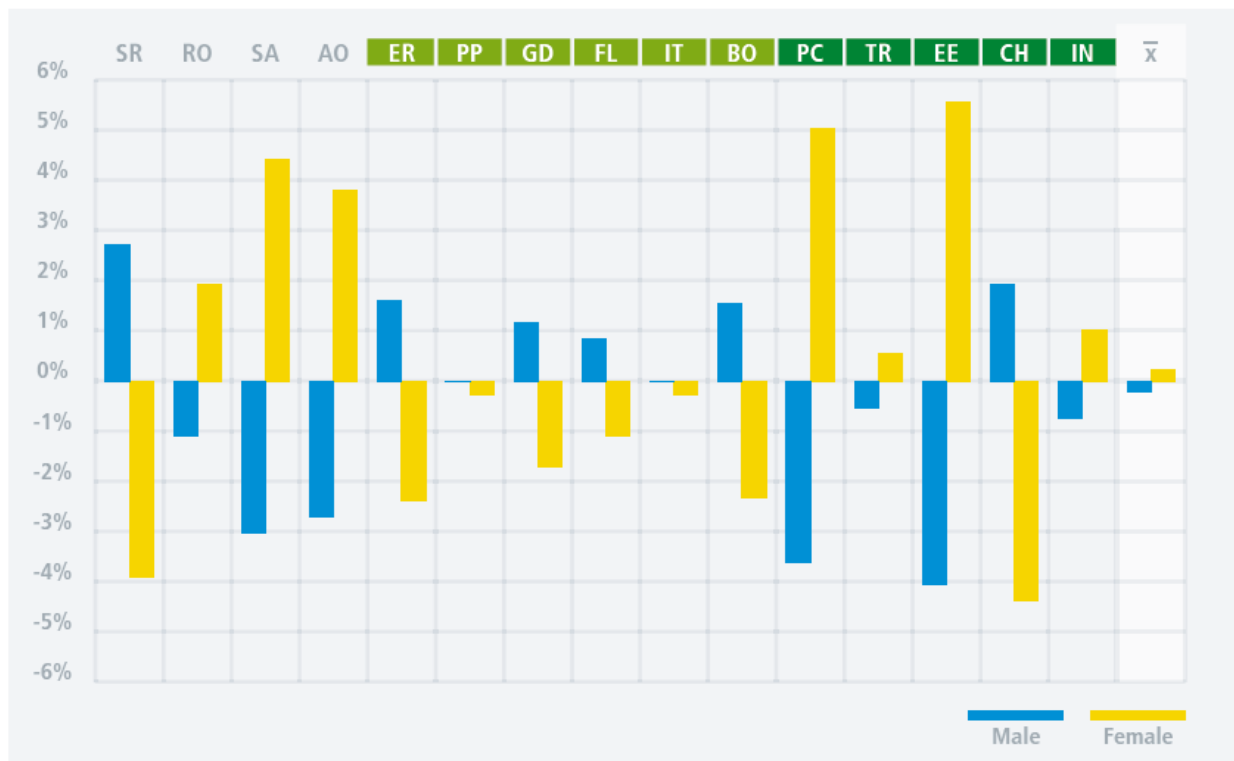
Key	SR = Self regard	RO = Regard for others	SA = Self awareness	AO = Awareness of others	x̄ = Mean average
<b>Self Management</b>			<b>Relationship Management</b>		
ER = Emotional resilience	PP = Personal power	PC = Personal connectedness	TR = Trust		
GD = Goal directedness	FL = Flexibility	EE = Emotional expression	CH = Conflict handling		
IT = Invitation to trust	BO = Balanced outlook	IN = Interdependence			

Sample:  
 Attempt 1 n = 189  
 Attempt 2 n = 189  
 Attempt 3 n = 22

- Over a 3-6 month period a sample of 189 delegates attended an EI development programme (Mie). They completed the ie before and after.
- The scores from the three completions of 'ie' show a consistent and significant increase in individuals self-perception in all of the EI scales. All but two scales increased between 14% and 24%.
- The Mie programme focuses on shifting attitudes. These findings suggest that changing attitude is likely to have a more enduring impact on long term behaviour change, consistent with cognitive dissonance theory (Festinger, 1957) and neurological research (Damasio 1994).

## Is there an EI difference between men and women?

Table 4 Gender: percentage above or below the mean average score



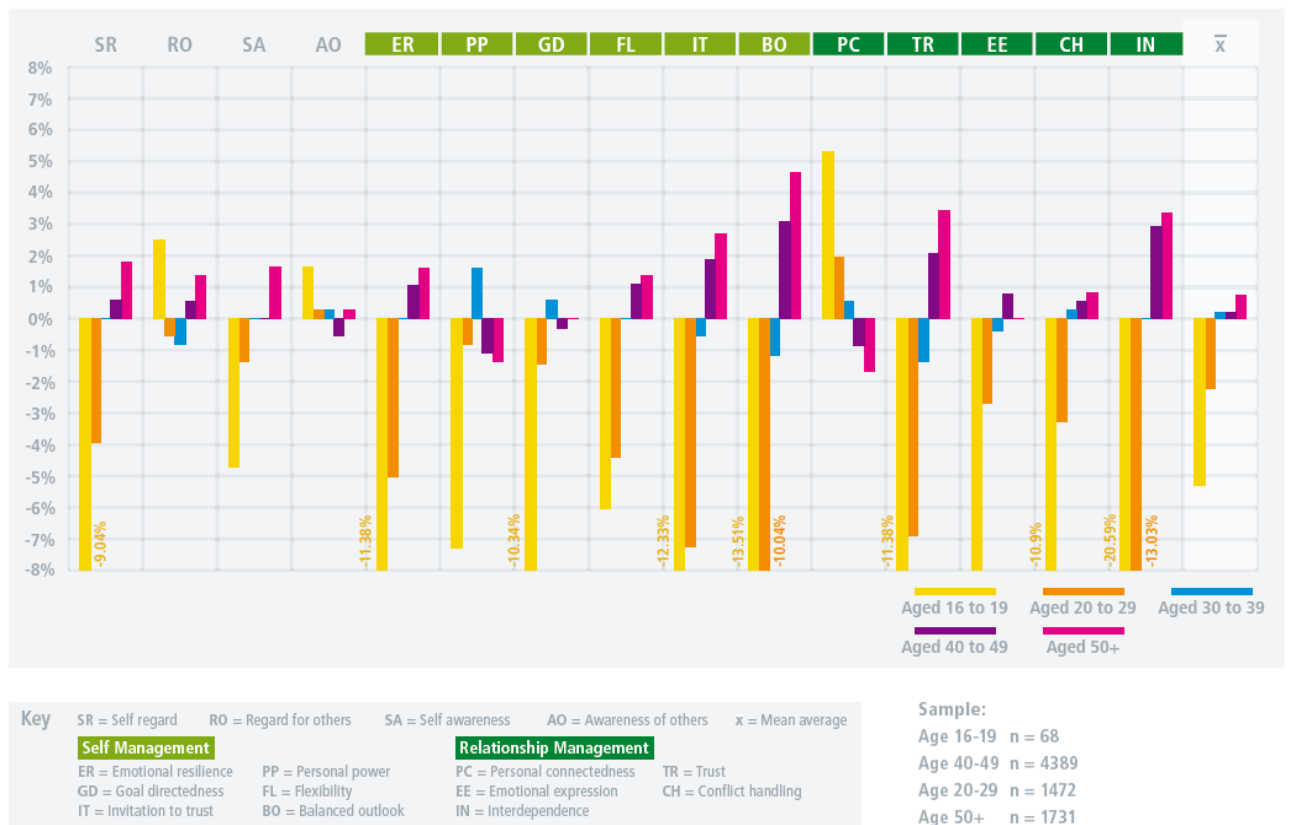
Key	SR = Self regard	RO = Regard for others	SA = Self awareness	AO = Awareness of others	x = Mean average
	<b>Self Management</b>		<b>Relationship Management</b>		
	ER = Emotional resilience	PP = Personal power	PC = Personal connectedness	TR = Trust	
	GD = Goal directedness	FL = Flexibility	EE = Emotional expression	CH = Conflict handling	
	IT = Invitation to trust	BO = Balanced outlook	IN = Interdependence		

Sample:  
 Male n = 7333  
 Female n = 5067

- Consistent with other findings (Bar-on, 1997), but not all (Gerits, 2005) there is no significant overall difference in EI between men and women.
- However, the clear trend in these results is that women score higher on the *interpersonal* (relationship) scales and men score higher on the *intrapersonal* (self management) scales.
- In the main, strengths for males are weaknesses for female and vice versa. For example, men have higher Self regard and women have higher Regard for others.
- One implication of this is that men and women would benefit from a different emphasis in their personal development. Men may benefit more from developing their 'interpersonal effectiveness' and Women from developing their 'self management'.

## Does EI change with age?

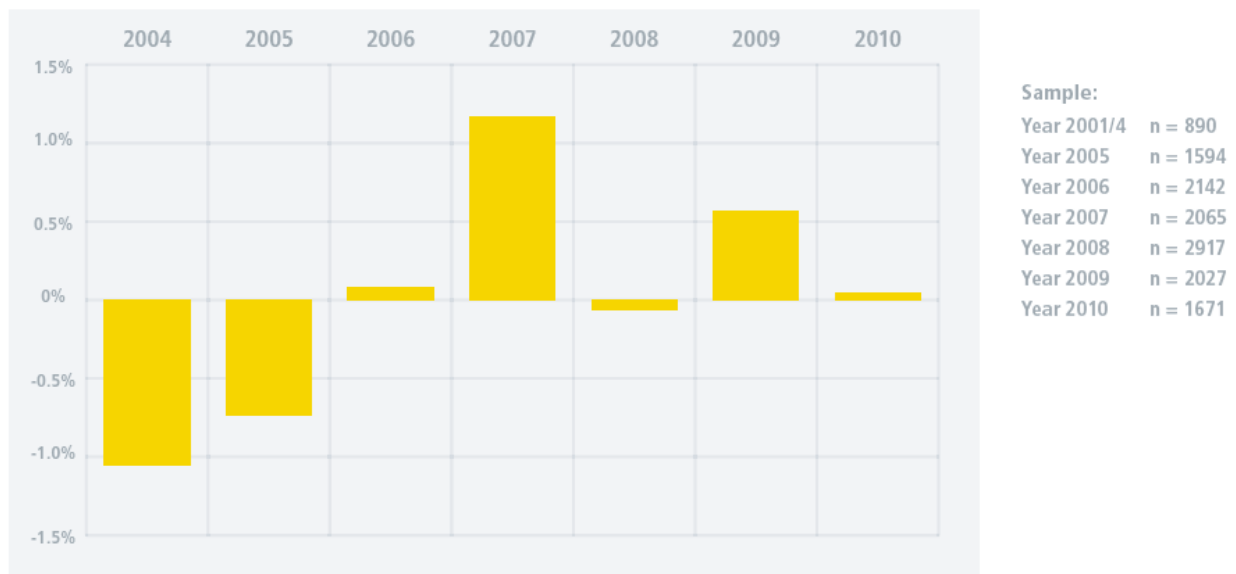
Table 5 Age: percentage above or below the mean average score



- Of the fifteen scales, ten increased consistently with age, suggesting that Emotional intelligence generally improves with age, consistent with other findings (Bar-on, 1997).
- Some of the age related research on EI suggests that EI plateaus or reduces after middle age (Kafetsios, 2004). For this study the sample is taken from the working population, which may suggest that remaining in work supports continued development of EI. This would be consistent with other research on psychological development (Cyr, 1996) being prolonged through active engagement in work.
- At age 30-39 there appears to be a considerable increase in EI, particularly around Personal power and Goal directedness. Both these scales are to do with 'making things happen' and this is the age when individuals may be most motivated to progress their careers (Super, 1957).

## How has EI changed over the last ten years?

Table 6 Years: percentage above or below the mean average score



- Overall there is a significant increase in EI between years 2001/4 to 2007 and then a drop in 2008 coinciding with the start of the economic recession.
- It is noticeable for example that Balanced outlook (being less pessimistic) peaked in 2007 before dropping significantly in 2008. Some commentators have suggested that the financial crisis was caused more by unrealistic optimism rather than greed (De Meza, 2010).
- Goal directedness dropped in 2008, which may be due to significant change, a sense of uncertainty and an inability to plan or forecast ahead.
- Flexibility also dropped in 2008. When we feel threatened e.g. over job security, then we may psychologically return to a 'survival' mode which is to protect and conserve what we have. This may mean we become less able to adapt to change and respond to potential opportunities when we most need to.
- Regard for others peaked in 2009, which may suggest that the recession prompted a more people caring attitude and less commercially driven mindset.

## Are there ethnic / cultural differences in EI?

- No overall differences were found between the seven continental groups in EI (Africa, Asia, China, Europe, Oceania, N America, S America). However, there is a difference in how EI is expressed between continental cultures, such as some cultures being more emotionally controlled and others more expressive

## Conclusions

Emotional intelligence is still a relatively new field and this type of normative data is valuable in many ways:

1. It helps identify areas for development in specific groups rather than a 'one size fits all' approach.
2. It identifies what aspects of EI are most relevant to higher performance and within specific job groups.
3. It provides a benchmark for comparison between an individual and the various norm groups. And identifies potential areas of adverse impact in selection assessment.
4. It challenges often held assumptions about differences between population groups that may not exist.

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