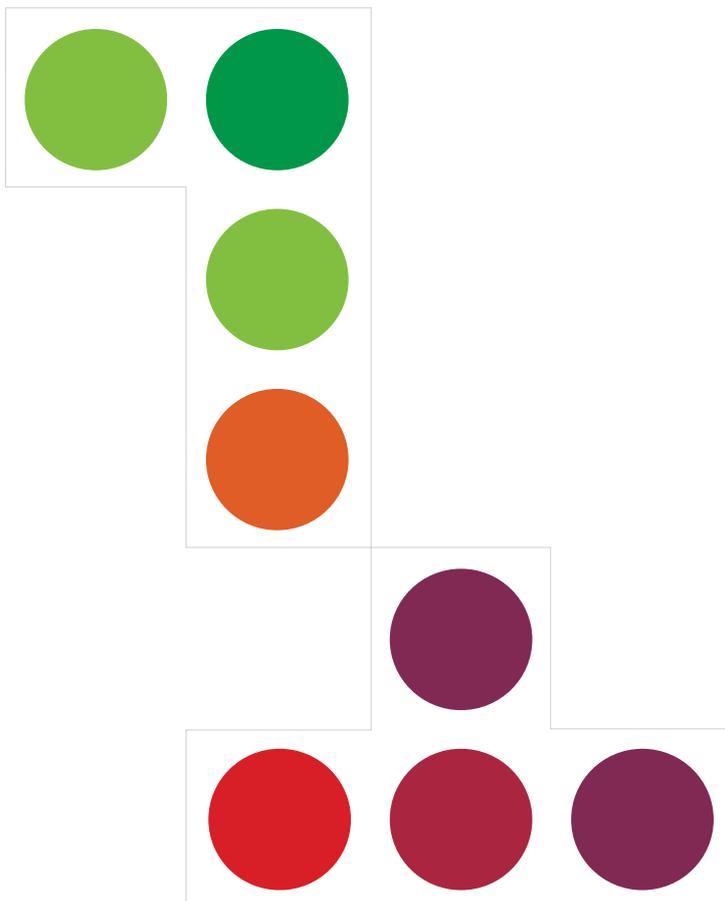


# ⋯ Introduction and background



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## Individual differences

Each person is different. We all know people who seem to be a world away from ourselves: in their ideas, their appearance, and in the way that they go about doing things. It is these differences that make people interesting and that allow us to learn from each other as we go through life. It is these differences, too, that make it worthwhile employing someone new, so that they can bring fresh ideas or a new style of operation to a job. The same differences are thrown into sharp relief in any form of human interaction. People work with others and any description of or judgement about an individual can only be made in terms of differences. This means that there are no absolute standards or measures of behaviour. What is 'aggression' to one may be normal to another.

The study of these differences between people is the main field of psychologists. Many have chosen to concentrate on differences in personality and over the past years numerous different approaches have been developed. Over recent years, psychologists have confirmed that, in order to understand personality properly, at least 5 basic factors must be taken into account. The terms used to describe these factors vary with different applications and authors but for consistency, in the Facet5 programme we have built on the terms applied by the Edinburgh University School of Psychology. These are Will, Energy, Affection, Control and Emotionality and are generally described as the BIG5 in personality discussions. The first four of these are independent personality factors whereas the last, Emotionality, although it has many characteristics that are specific, should be viewed as an interpreting factor that will affect how the other four are seen.

Management theorists have, for many years, argued that effective management is only possible with a thorough understanding of employees' personalities as well as their working situation. Research also shows that a 'person-centred' rather than 'production-centred' management style produces better, and more effective, business results in the long term. Therefore, in the field of personnel selection, identifying the ways in which one employee differs from others is important. To do this we need a model that allows us to look at these different aspects of personality, and that will then allow a greater understanding of the similarities and differences between individuals. For example with such a model we can *describe* behaviour and understand the drives and motives behind it. We can *predict* behaviour and thereby aid selection decisions. We can *explain* behaviour and help people understand how others see them. In short, Facet5 provides a model that helps people understand each other better. With this knowledge managers can adjust their management style to take account of the particular individual, recruiters can explore key issues at interview with accuracy and understanding and counsellors can help individuals to develop more effective ways of handling particular situations.

Facet5 is distinctive in that it is one of the very few psychometric processes which has been designed explicitly to link psychometric and management development theory; and has been developed as a result of extensive experience in the field of occupational testing and management consultancy.

## The emergence of 'person based management'

The idea that people are different is obvious. Since the early 1960s, Human Relations training programmes have been specifically designed to teach managers how to identify the appropriate ways to approach different types of people. These approaches were frequently based on complex, but often reliable personality questionnaires. For example, under the heading of *To Secure Cooperation*, the approach to one person may be to stress the orderliness and efficiency involved whereas for a different person it would be more appropriate to point out the personal benefit accruing. This may appear self-evident but the real trick is identifying which person will respond best to which approach.

This approach to HR training has been widely developed and applied by successful management training organisations. Many such programmes now exist specifically to teach people how to understand and work with others. Approaches have been developed for selling (Sales Styles), management (Management Styles), training (Learning Styles) and many others. Interestingly, most of them are 'four factor' models that tend to ignore Emotionality. Given the significant impact that Emotionality has on almost all aspects of behaviour, this would seem to be a significant gap. Later parts of this guide will go into this aspect more thoroughly.

### Why concentrate on personality?

It has been recognised that one of the most valuable contributions of an understanding of personality theory is that it can teach people how to work together effectively. Most 'war stories' and anecdotes in companies, (the 'semiotics' which define the corporate culture), are about unusual behaviours. Some examples:

- A major holding company claims that 'around here we hire people for their technical skills and fire them for their interpersonal skills!'
- A successful Managing Director was so accident-prone when travelling that his staff dreaded unaccompanied trips. She arranged for him to be treated by the airlines as an 'unaccompanied minor' to make sure he got on the right planes
- A 'free thinking' trainer expressed an abhorrence of structure and order in his courses, preferring to be unconstrained and to 'let things run'. He described this as an 'experiential approach' where flexibility often extended to the start and finish times and even the content of the programmes. Half the people on his courses were frequently frustrated because they not only didn't know what they were going to do but didn't think he knew either!
- A highly efficient manager couldn't wait to get into his new job so that he could point out to everybody how much more efficient he could make the company by bringing his experience to bear and imposing some standard procedures. He assumed everybody would be grateful for his efforts.

Clearly then the need to understand people, their motives, drives and aspirations has become one of the most pressing issues for organisations. That people have studied the area is undoubted but there has been little consistency in their findings – until recently. It is worth looking at the development of these investigations to see the way people’s thinking has changed over the years.

## Understanding the individual

The original issue in personality theory was to develop an understanding of people as individuals. To try to describe what they were likely to do, what motivated them and how to help them do things better. This one-to-one process is used by counsellors, therapists and suchlike who simply need to relate to the individual. As a result the important thing is that the respondent and the counsellor both understand each other – that they have a common language. That this language might be obscure or even private was not an issue since it was primarily a personal discussion. This field is probably the original application of personality theory and a myriad of processes and models have been developed.

However, at the heart of this area is probably one of the most fundamental debates in psychology. Some would argue that a person’s behaviour is inextricably linked to and influenced by the environment. Any attempt to understand one without the other is futile and there is little point in trying to separate them. Such an approach suggests that people are variable and can change as a result of their interactions with the environment. The environment would include not only events and circumstances but also other people. Under such a model, behaviour becomes a complex interaction driven by forces outside the person – change the environment and you will change the behaviour!

However, this raises many questions. We all know people who seem to consistently behave in particular ways, almost regardless of the circumstances. This has led to an alternative approach whereby people are deemed to have sets of environmentally independent characteristics that shape and guide the way they interact with their environment. This approach also suggests that some of these sets of characteristics are shared with other people. In fact human language has developed extensive vocabularies for describing these shared groups of behaviours. These vocabularies provide convenient shorthand which people use in the most widely played human game of all – talking about others.

For many, this shorthand develops from personal beliefs and stereotypes that may have little base in fact. Nevertheless, in the absence of a better model, people use the concepts that they felt comfortable with. Redheaded people are therefore short-tempered, fat people are jolly, etc. Shakespeare immortalised some of these concepts. He described Cassius (Julius Caesar) as follows:

*‘Let me have men about me that are fat,  
Sleek-headed men, and such as sleep a-nights.  
Yon Cassius has a lean and hungry look.  
He thinks too much. Such men are dangerous’*  
Julius Caesar 1.2. 193–196

In sum, the first milestone of personality psychology was the development of a common language between psychologist and respondent. This language changed depending on the individual; an inherently personal discussion. This understanding led to the consequential realisation that individuals both shaped, and were shaped by, their environment. Nevertheless, there exist core underlying personality characteristics that are constant across individuals that continue to show despite environmental fluctuations. The idea that particular sets of characteristics belong to particular sets of people led to the development of stereotypes. They are convenient shortcuts to describing people. But they are frequently wrong. Fat people are not necessarily jolly? Not all Asians are good at maths? Clearly, certain groups of people with certain groups of personality traits exist and are acknowledged by human nature. But we need something better than stereotypes. The comprehensive classification of these groups is the challenge of personality psychology.

### **In search of the Babelfish**

The task of classifying personality into distinct components has been undertaken by a number of eminent psychologists since the 1930s. The following is certainly not to be taken as a comprehensive analysis of each development of personality psychology, but rather an overview of the key milestones. It became clear that there were common threads uniting individuals in terms of personality. What was needed was a comprehensive model that illuminated these threads. Enter the Babelfish. In *The hitch-hiker's guide to the Galaxy*, Richard Adams described the concept of the Babelfish. This was a tiny fish which, when inserted in a person's ear had the unique ability to automatically translate any language into the one the wearer could understand. This was a biological Rosetta Stone and of infinite value. Psychology needed a Babelfish to convert all the disparate concepts of personality into a common framework which all could understand.

Before we analyse the various frameworks that drew together the disparate threads of personality research, let us acknowledge the threads themselves. The birth of personality psychology was seen in Ancient Greece. The Ancient Greeks related personality traits to the four 'humours' which were supposed to exist in the human body: Phlegm, Green Bile, Black Bile and Blood.

This 'Hippocratic System' suggests that different balances in the levels of the 'humours' would result in different behaviours or personalities. The next advance was Galen's system, also based on bodily humours, which described people as choleric, phlegmatic, sanguine or melancholic. Early literature acknowledged individual differences. A prime example is 'The Reeve of Bawdeswell' in Chaucer's *The Canterbury Tales*:

*'The Reeve was old and choleric and thin'*

The next conceptualisation of personality differences was undertaken by the Babylonians, who linked personality traits to Astrology. Therefore, individuals were described according to the relative influence of their birth signs. Thus people were described as Mercurial, Martian, Saturnine and Jovial. This approach continues to appear in popular literature. In fact there has been much academic research on the influence (if any) of the planets on personality. It is hotly debated between those who swear there is a link (astrologers) and those who deny it strongly. A Google search for the Gauquelin Effect might make interesting reading.

These approaches held sway for thousands of years. People moved between different categorical systems as they saw fit and invented new ones when they wanted. The rise of the 'scientific method' in the 19th Century brought new excitement. While the Hippocratic system was still used, Victorian 'scientists' thought up some good new ones. For example Phrenology, thought to be the work of the German physician Franz Joseph Gall, explained that behaviour (especially criminal behaviour) could be detected from facial and cranial characteristics. A great deal of work went into this and the concept held sway for some time. In the 1940s, William Herbert Sheldon was convinced that the overall physical shape of a person was a good indicator of personality<sup>2</sup>. He suggested that, when they became mentally ill, tall thin people (Sheldon called them 'ectomorphs') were more likely to suffer from schizophrenia than short, fatter people (his 'endomorphs'). Endomorphs in their turn would be more likely to suffer from manic-depressive problems, the so-called 'cycloid' disorders. It might be assumed that 'mesomorphs' who are roughly in the middle would have an equal chance of either disorder. Sheldon's produced strong supporting evidence for his theory until someone pointed out that he hadn't controlled for the age of his subjects. Since schizophrenia is known to be more prevalent in younger people who in turn are likely to be slimmer and manic-depressive psychosis is found more frequently in older people who may have more of a 'middle-aged spread', his results were fatally flawed.

The 19th Century also saw an increase in the intensity of thinking in individual differences. People like Francis Galton, one of the very first 'psychometricians', tried to address the big question:

*'Are there common traits, which will help to describe people, and if so how many are there?'*

People who worked in this field tended to concentrate on mathematical approaches and the advent of more mechanised methods of analysis allowed the work to proliferate. Early psychometricians Charles Spearman and Louis Thurstone contributed hugely to the study of individual differences although much of their work concentrated on measuring intelligence rather than personality. Personality psychology became more mathematically rigorous with the entrance of Raymond Cattell, Harrison Gough, J.P Guildford and Hans Eysenck who each developed their own scientific, statistically derived approach to the question: 'How many traits comprise a personality?' Cattell, Gough, Guildford and Eysenck each employed Spearman's newly developed technique of factor analysis. Despite technical debates, the fundamental techniques were similar<sup>3</sup>. It was therefore rather surprising how different the results turned out to be. Eysenck identified two (later three) sets of characteristics, Gough used 25, Guildford was happy with twelve and Cattell was adamant that there were 16. The academic argument was intense and did little to settle the minds of most people who went on using the unscientific, superstitious approaches that they always had. After all,

*'its obvious short people have a chip on their shoulder and artists are moody and unpredictable! Psychologists are all in need of help themselves anyway so we shouldn't be surprised if they seem a bit odd'.*

The result was that people just picked up the model they felt most comfortable with or gave up and consigned the whole lot to the rubbish bin. The period through the 1950s and 1960s probably produced some of the most significant work in the field of personality theory and yet produced little improvement in the public's use and perception of psychology. There was great

emphasis on academic rigour and apparently scant attention to general utility. Why was this? Public disagreements between psychologists may have made an impact, however, the work of George Miller in 1956 may be of greater significance<sup>4</sup>. Miller demonstrated that studies of mental processing and perception suggested that there was some kind of 'natural' limit to how many different sets of characteristics could be processed by the 'average' person. He put the number at around seven and gave persuasive support to the argument. If this is true then perhaps the trait theorists with the more complex models involving 20 or more factors may have been at a disadvantage from the start. Perhaps people just couldn't make much sense of these complex models even if they were statistically correct.

The current state of this argument suggests that five fundamental factors are necessary to describe normal human behaviour adequately. As you would expect, there is still some debate, nevertheless, five seems to be the core. These have become known as the Big5 in personality. The development research behind this Big5 model is described below.

## What is personality?

This question has been argued for many years and readers interested in an overall view of the opinions in the area should consult one of the recognised texts in the field. Chapter 2 of *Personality Assessment* by Lanyon and Goodstein gives a good summary of the debates in the field.

In general, personality is assumed to be an underlying predisposition to behave in a particular way.

It is consistent and stable. It develops gradually although some elements may be inherited.

It shapes daily behaviour but is separate from it. For example the underlying predisposition may be to challenge using physical aggression. The observed behaviour however may be a more socially acceptable version such as strong argument. This is shown schematically below:

ocial control

## Social control

In this model the core personality (top left) is modified and adjusted by social controls and pressures which encourage us to adjust and flex behaviour to suit the situation. People can modify their behaviour but there are limits. For example very dominant people will find it hard to be convincingly submissive (even if they wanted to be).

For operational purposes however, contemporary views of personality tend to fall into two main schools – type theory and trait theory. The differences are as follows:

**Type theory:** This approach is largely based on Carl Jung's theoretical concepts of 'preferences'. This view holds that people tend to be either one thing or another and are unlikely to hold positions in the middle. For example people tend to be Introverted or Extroverted but not somewhere in the middle. All of the approaches based on Jung's theories, (eg Myers Briggs Type Indicator or MBTI, Team Management Index etc) follow this line. Individuals are therefore placed into classifications or 'types'. A generic description can then be produced for each of the types. The advantage is simplicity but a disadvantage is loss of detail for interpretation. There are also serious statistical questions raised about the whole concept of placing people into types. McCrae and Costa have argued that there is no statistical basis to support type theory regardless of the operational or theoretical elegance it affords. Harvey et al<sup>10</sup>, went to the trouble of producing a custom scoring system for the MBTI which would convert it to a Big5 structure. However, type theory remains very popular in many areas of management development; especially team integration. In fact the MBTI is probably the most widely used personality model in the world.

**Trait theory:** The majority of theoretical psychologists have tended to follow a 'trait' approach. This view states that there are a limited number of characteristics or 'traits' which differentiate individuals from each other. (The actual number varies from one theorist to another – see Appendix 1) A person can have any amount of any particular trait, including an average amount. According to this model people can be Introverted, Extroverted or somewhere in between. A middle score is perfectly valid indicating someone who is not extreme on that dimension. In fact, by definition, most people are average. Few people have extreme scores. Such a view is supported by the statistical data (scores are normally distributed) and is intuitively acceptable. Some people are genuinely neither one extreme nor the other.

One of the earliest trait theories of personality that is very well known and widely adopted is the two-factor model proposed by HJ Eysenck (Eysenck (1947)). Eysenck argued that the major source of individual personality difference could be reduced to two basic factors, each of which operated independently of the other. The first of these two factors was Introversion <vs> Extraversion, the second, Stability <vs> Neuroticism.

Eysenck arrived at his model by taking responses to questions about a large number of personality variables, and subjecting them to factor analysis. This showed that several apparently different behaviours seemed to cluster together to form a trait. An individual who scored highly on, say, impulsivity and risk-taking questions would also tend to score highly on sociability or activity questions. To Eysenck, this implied that there was some common factor underlying these specific

personality traits, which he explained as arising from different levels of neural activity in various parts of the nervous system. He argued that if measures of the two basic traits were taken together, they would identify the major types of human personality.

Eysenck's two-factor model, however, provided only a limited insight into human personality. Many felt that a more sophisticated model was needed, and other researchers began to produce them. A second model of personality that rapidly became popular in the psychometric field was Raymond Cattell's. Cattell proposed that adult personality consists of sixteen different personality factors – a conclusion which was also based on the application of factor analysis to statements about the individual's personality. The personality questionnaire based on that model, the 16PF, (16 Personality Factors) provides a profile of the individual's personality which gives a far more sophisticated picture than the Eysenck model could then provide (Cattell (1946)).

Other models of personality soon followed. Psychologists became interested in different types and combinations of personality traits in their search for a model that would capture the essential elements of human personality. To date, measuring scales have been developed for an enormous number of different traits: the list which follows is only a selection of them.

<b>Activity</b>	<b>Creativity</b>	<b>Independence</b>	<b>Self-discipline</b>
Aggression	Culture	Inhibition	Self-sufficiency
Agitation	Curiosity	Insecurity	Sensitivity
Agreeableness	Dogmatism	Intelligence	Shrewdness
Anxiety	Dominance	Monotony avoidance	Social adaptability
Autonomy	Energy	Neuroticism	Socialisation
Boldness	Extroversion	Objectivity	Stability
Compliance	Fear	Pathemia	Surgency
Conformity	Femininity	Potency	Suspiciousness
Conscience	Hostility	Psychopathy	Tension
Conscientiousness	Imagination	Radicalism	Tough poise
Control	Impulsivity	Responsibility	Warmth

## The emergence of the Big5

This proliferation was often helpful in that it allowed people to look at almost any aspect of human behaviour that they wanted to. It also led to a great deal of confusion as concepts that appeared to be very similar were given different labels and often slightly different interpretations. To someone new to the area this was very confusing. To practitioners and users alike it seemed there was a plethora of often-similar concepts on offer. Frequently the differences reflected the personal predispositions and caprices of the authors. So we needed a Babelfish, but none existed.

In 1963, however, WT Norman published a paper that described how almost all of the different personality factors identified by personality theorists could be structured<sup>11</sup>. Norman had found that a general model which described five major factors could be used to cut through the morass of different traits, in a way which would be useful for people wanting to compare the outcomes of different personality scales. Norman identified five factors using a statistical analysis of the way in which personality test items and scales could be grouped together. The five factors identified by Norman were:

- Surgency was similar to the Extroversion scale described in Eysenck's original two-factor model, but also included some other traits, such as Energy, Dominance/Submission, and Humility/Pride.
- Agreeableness included scales measuring Fairness, Generosity, Stubbornness, and whether the person was Critical or Lenient, and so on.
- Conscientiousness included whether the person was Hardworking or Lazy, Thorough or Disorganised, Dependable or Negligent.
- Emotionality appeared to be very similar to Eysenck's Neuroticism scale, and incorporated measures of Nervousness, Jealousy, Even-temperedness, Temperamentality and Security.
- Culture included aspects of Curiosity, Knowledgeability, Creativity, Intelligence and whether the person tended to be Perceptive and/or Analytical.

Norman's five-factor model did not generate a great deal of interest at the time that it was first published. However, as the need grew for tests which would identify some kind of common basis for personality, and which could also be used in applied settings (eg to help managers to identify valuable employee characteristics when taking on new staff), the model became better known. To a large extent, this was because other independent researchers were also beginning to find that personality traits could be clustered into five general factors.

## Further support for the five factors

However the idea did not die. Other researchers started to look at the question and research started to converge. Some examples are:

### Costa and McCrae (1976)

Costa and McCrae outlined a model of personality that they called the NEO model. The name NEO summarised the three personality factors on which they based their model: 'N' for Neuroticism; 'E' for Extroversion (with both of those factors being similar to the original two Eysenck concepts), and a third category: 'O', or Openness to Experience.

Costa and McCrae had arrived at this model by analysing how the different personality factors measured by Cattell's 16 Personality Factors (16PF) could be grouped together, using the statistical technique of cluster analysis. During the analysis, they found that although most of the traits could be seen as aspects of the two major Eysenck-type dimensions of personality, some did not seem to fit into either category.

Accordingly, it was necessary to add a third dimension, and what the 'left-over' traits all seemed to have in common was that they all reflected some aspect of Openness to Experience. They argued that different aspects of this dimension were also reflected in several other personality scales, such as Rokeach's Dogmatism scale (Rokeach<sup>13</sup>), or Holland's Artistic Interests scale (Holland<sup>14</sup>).

As they continued their research, however, Costa and McCrae found that they needed to add another dimension to their model, because certain scales from personality tests that they examined did not seem to relate to any of the three factors in the NEO model. These included factors such as Super-Ego (strength), and Persistence. Accordingly, they added a fourth dimension, Control, which they described as being broadly to do with the amount of control which people felt they needed to exert over their lives.

McCrae and Costa (1985) discussed how their four factors seemed to have a great deal in common with Norman's basic factors – or at least, with four of them. Two of these factors seemed to map onto Norman's model very clearly: their measure of Neuroticism seemed to be very similar to Norman's Emotionality factor; and their Extroversion measure connected very strongly to Norman's Surgency factor. In a similar manner, the dimension of Control that they had added to their NEO model seemed to be very similar to Norman's Conscientiousness factor.

The fourth factor, Openness to experience, however, did not seem to be identical to either of Norman's remaining two factors; although it did have quite a lot in common with the Culture factor. The difference, though, was that the Openness dimension did not include any element of intelligence, or intellectual ability. McCrae and Costa argued intelligence was a separate dimension of mental life altogether – an ability that should be assessed completely independently of personality.

In comparing their findings with Norman's, they argued that the reason Norman's fifth personality factor – Agreeableness – did not show any connection with the factors shown up by their research, was because it was not a dimension which was asked about in the traditional personality scales

which they had been analysing. When they included test items which asked explicitly about aspects of personality related to Agreeableness, they found an entirely separate fifth aspect of personality emerged, which did not combine with any of the others even when it was subjected to factor analysis. Accordingly, they argued, a five-factor model seemed to be the most useful type of approach in personality research and assessment (McCrae and Costa (1987)<sup>15</sup>).

### **Digman and Takemoto-Chock (1981)**

Digman and Takemoto-Chock used factor analysis to re-examine the data from five different studies, and also emerged with five basic factors.

### **Brand (1984)**

Chris Brand produced a review of the different five-factor models that had emerged from factor analysis of the many different personality traits measured by current psychometric tests. He argued that they could be classified into the five dimensions of:

- Will (including independence, sociability, self-sufficiency and autonomy)
- Energy (extroversion, assertiveness, surgency and social inhibition)
- Affection (tough-mindedness, trust, aggressive sensation-seeking, and openness)
- Conscience (control, lack of impulsivity, superego-strength, conformity, conventionality)
- Neuroticism (emotionality, adjustment, anxiety, over-sensitivity and emotional lability).

It is this model that we have operationalised in Facet5. The similarities and differences between Facet5 and other models will be discussed later.

### **Digman and Inouye (1986)**

Digman and Inouye<sup>18</sup> labelled the five factors that they discovered as:

- Introversion/Extraversion
- Neuroticism
- Will
- Friendly Compliance/Hostile Non-compliance
- Openness to Experience.

### **Noller, Law and Comrey (1987)**

This team compared responses to items from Cattell's 16PF, the Comrey Personality Scales, and the Eysenck Personality Inventory, and ended up with five factors again<sup>20</sup>.

## Differing opinions on the Big 5

Although there is very strong support for the existence of five independent core personality factors people continue to differ on exactly what each of the factors consists of.

Some researchers debated whether Norman's factor of Culture was really a fundamental aspect of human personality. Eysenck and Eysenck (1985) argued that it only emerged as an important dimension when subjects from essentially academic settings were being tested and that when personality tests were applied to people in the 'real world', as it were, Culture did not seem to emerge as an important distinguishing factor. On the other hand, a study by Zuckerman, Kuhlman & Camac (1988)<sup>24</sup> produced some evidence that a factor of Sensation-Seeking should be included in the set of five instead.

Chris Brand<sup>25</sup>, among others, suggests that Costa & McRae's Openness to Experience factor is incorrect, and only emerges in populations of above average intelligence. If you go to a broader population the intellectual aspects disappear and you are left with the nurturing, helpful, honest parts. Chris Brand also insists that Intelligence has to be included, making it a six-factor solution. Many would agree with this.

In fact you can see this thinking in Lee and Ashton's HEXACO model (Honesty-Humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness and Openness)<sup>26</sup>. Clearly, they acknowledged the classic factors but added one called Honesty-Humility defined as:

*'Persons with high scores on the Honesty scale tend to avoid manipulating others for personal gain, to feel little temptation to break rules, to be uninterested in possessing lavish wealth and luxuries, and to feel no special entitlement to elevated social status or privilege. Conversely, persons with low scores on this scale tend to feel a strong sense of self-importance, to be motivated by material gain, to feel tempted to 'bend' laws for personal profit, and to flatter others when this may be successful.'*

Which is much closer to what Eysenck and Brand suggested, which appears in many models including Cattell's 16PF and which appears in Facet5 as Affection.

There have been other disputes as you would expect. McKenzie<sup>27</sup> stated that the whole Openness to Experience measure didn't appear in his analysis. But he did find Toughmindedness which originated in the 16PF and has transferred to Facet5 as Affection.

Other disputes have emerged from the cross-cultural field. Many questionnaires have been translated to other languages. Most of these have taken a questionnaire written in one language (usually English) and have gone through a translation process. There is then further analysis to confirm that it is measuring the same things. However some have argued that this approach can fail because it attempts to apply things that exist in one culture to another culture. Fanny Cheung at the Chinese University in Hong Kong has demonstrated that if you develop an questionnaire entirely within the Chinese cultural system (an emic approach) you get slightly different results from if you translate from an English one (an etic approach)<sup>28</sup>.

One key difference is that when she and her team compared the two sets of results the Chinese version had a factor called Ren Qing (relationship orientation), which covers:

*adherence to cultural norms of interaction based on reciprocity, exchange of social favours, and exchange of affection according to implicit rules*

which seems to have elements of Affection in it.

Similarly, Szirmak and de Raad<sup>29</sup> tried a similar exercise with Hungarian data. They also found that Openness to Experience didn't emerge. They found a factor which consisted of:

*veracious, just, trustworthy, and decent, on the one hand, and hypocritical, swollen-headed, greedy, and overbearing, on the other, the factor seems to portray Integrity or Trustworthiness.*

Either way, it seems, the idea that there are five basic factors of personality is one that recurs time and time again. If people suggest more than five (nobody seems to suggest fewer) then they are either adding Intelligence or the nurturing, caring, trusting and helpful elements that appear in Facet5 as Affection.

## Terminology

The names given to the characteristics or traits which people identified varied according to their approach. Some chose traditional sounding psychological words such as Neuroticism, Extraversion and Paranoia. Others, believing they had stumbled on a new and meaningful concept seemed to take their scientific mantle very seriously and chose to invent new words to describe their ideas. Hence we have Cattell's creation of Parmia, Threctia and Harria among others – words which may have meaningful roots in classics but which mean little to most people. Others chose a 'natural language' approach that used everyday words that people have been using for a long time and which seem to emerge naturally from an understanding of the underlying characteristics. This is the approach that we have used in Facet5.

## Some summary questions

### How do we measure personality?

Nearly all personality measures are self report. Sometimes this is questioned because it is thought that people will give the answers that either best fit what they expect is required (especially if applying for a job) or are in keeping with their own perception of their ideal self. ie this is how I would like to be perceived. It is therefore sometimes suggested that we should use some other method to measure personality. Some have suggested using behaviour observation scales. Others have suggested peer reports will be effective. And both of these have been tried and they do work. However there are some aspects that only a self report can answer. Questions of attitude, feeling and reaction are things that only that person can know and so self reports are likely to be with us for some time to come.

### Are we born or made?

It is a common question. Was I born like this or did my upbringing make me the way I am? It is comforting to adopt the environmental argument since it suggests that we have a great deal of free will and can make ourselves any way we like. It provides encouragement to those who would like to change and support to those who think they did it all themselves. So what does the research say?

It's not surprising to find that the genetic basis of personality has been a major area of study for many years. The recent dramatic increase in studies in neuroscience and neurobiology in recent years provides successively improved understanding of how we develop. And it's not good news for the 'environmentalists'.

This page will be out of date by the time I have written it but here is a sample of what has been found so far:

- Extraversion (which as you will see emerges in Facet5 labelled Energy) seems to have a significant genetic basis. Babies can be differentiated in terms of their general responsiveness to outside stimuli. There is much research which converges to give this finding including Scarr (1969)<sup>30</sup> and Canli & Tuhun (2004)<sup>31</sup>
- Dominance is related to genetic structure so we can confidently link this to genetics. See XingGuang, Kranzler, Lingjun, Shuang & Gelerntner (2007)<sup>32</sup>. In Facet5 this emerges as Will
- Control (the tendency to be thorough and rule following) seems to have some genetic basis. You can see this very specifically in the study by Luo, Kranzler, Zuo, Zhang, Wang & Gelerntner (2007)<sup>33</sup>. There may also be a biological link to the maturation process. Myelination (the development of a myelin sheath around a nerve fibre) is thought to relate to the growth of impulse control in adolescents. Amanda Schaffer writing in the online medical magazine *Slate*<sup>34</sup> cites a case in the US suggesting that adolescents cannot be held liable for their actions due to the incomplete myelination of the adolescent brain. The argument is that they shouldn't be held accountable for the 'immaturity of their neural anatomy and psychological development'.

This may not be a genetic issue but it is certainly a biological development issue and it is not too far a stretch to suggest that there may be individual differences in the onset and speed of this critical process. We already know there are gender differences in myelination and cerebral pruning, two processes that are essential to brain development<sup>35</sup>

- Affection is linked to altruism and selflessness. It is core to many discussions including McGregor's Theory X vs Theory Y model of management. Theory Y is people oriented and is based on the belief that people are fundamentally good and selfless and will respond to encouragement. Theory X says the opposite. People are fundamentally lazy and selfish and need to be managed tightly. Altruism and Selflessness would seem at the root of this dichotomy. A strictly evolutionary, Darwinian view would suggest that selfishness is required to survive in an ultimately ruthless world. Which in turn suggests that altruism is an odd, mal-adaptive attribute which you would expect to die out eventually. But it doesn't. Why?

There is much research that suggests that in fact there may be a positive benefit to being altruistic. An article by Sean Aqiu in *Midtopia* outlines some of these<sup>36</sup>. A Google search will show this to be a hotly discussed topic and Richard Dawkins gives a compelling outline in his book *The selfish gene*

- Emotionality is frequently called neuroticism and is one of the most consistently researched attributes there is. A simple Google search of 'emotionality and genetics' or 'neuroticism and genetics' will provide many hours of happy reading. A study by the Wellcome Trust Centre for Human Genetics found that it was difficult to link it to a specific gene but suggested it was linked to a complex combination of genes. This is called the 'Whole Genome Approach' (WGA) and is a very complex process.

However there are many studies showing links between genetics and specific expressions of emotionality such as phobias.

## Will my mood change my results?

This is a frequent question. Someone will say they were in a happy mood and surely that will have affected how they responded. However this has been addressed for many years by test designers and the acid test is the 're-test reliability'. If it was thought that mood would affect the scores significantly then we would expect markedly different results the second time around. But this generally doesn't happen. The reliability of Facet5 is described in other sections but most reputable questionnaires are known for getting similar results when the people are re-tested. And all reputable questionnaires will report this in the technical data.

## Conclusions

Appendix 1 shows how these different approaches to personality link together to form a logical structure. The table includes some of the better known and more widely used models. However we must remember that this is just a small fraction of the many approaches which are available. There are thousands of tests available that look at personality in one way or another. In addition new tests are being developed all the time. Occasionally there are very specific 'criterion referenced' models which are designed to measure particular behaviour traits such as customer service orientation, sales 'call reluctance', or some other element. However, in the face of the accumulated evidence for five factors, it would seem hard to justify the development of any model that didn't follow the Big5 at heart.

In fact the Big5 model is so widely accepted now, in so many different languages that the only significant criticism is that more factors may give greater detail in specific cases and would be more useful for personal counselling. This may be true but most Big5 models allow this anyway. Facet5 identifies elements within each main factor, which provide differentiation especially for more moderate scores.

It seems likely that the differences between the various five-factor models that have been put forward are really fairly superficial. The five underlying factors reflect basic differences in fundamental temperament, which can manifest themselves in personality traits in more than one possible way. Since each researcher places a different emphasis on the features of personality that they encounter, they will come up with models that are slightly different from one another. Personality factors are both broad-ranging and very complex so perhaps it is not too surprising that different sides of them emerge from different research studies.

It would now seem that any broad span personality model which has been developed properly in the first place, can with proper understanding, be reduced into the Big5 factors. Conversely anybody who is working with fewer than five factors, except in the case of the special 'criterion referenced' questionnaires built for particular applications (mentioned earlier) would seem to be missing something.

## Facet5 at work

The relationship between personality and work is critical to many management decisions, especially those relating to selection. There is a growing mass of data indicating that there are stable and reliable relationships between personality and on-the-job performance. Again, logic would seem to support this view. The alternative view is that all people, of all dispositions, are equally likely to succeed in all jobs. This seems hard to accept. For example research has demonstrated that more Extroverted people seem to do better at sales and sales management roles than Introverts. This is hardly surprising and indeed most of the Facet5 data collected from sales teams shows relatively high extroversion scores coupled with high levels of confidence and emotional stability. In addition, as the research strategies have improved so has the validity of personality measures as each researcher corrects the errors made previously. Psychologists seem to be gradually reaching the point of view that most managers reached many years ago; some people are better at some jobs than others and much of the difference in performance seems to be related to the way the person goes about the work – ie their personality.

Facet5 has been specifically engineered to be more than a personality measure. Facet5 is focused on work applications – it is the ‘central processing unit’ to manage the employee life cycle. For example:

- Role definition – what some roles require
- Selection – fitting people to these roles
- Induction and Integration – managing the first three months
- Development – what does a person bring to a team
- Performance Management – a 360 review tells you what is happening. Personality tells you why and shapes the development
- Spotting talent – what do people need to accept broader responsibilities
- Leadership – identifying future leaders and focusing leadership training
- Coaching – helping to advise people on their careers
- Outplacement/Exit – at this point people are vulnerable and often looking for direction. Effective outplacement has huge benefits for the employer brand.

## Appendix 1

# The structure of personality models

Author	Big 5 Factor				
Buckley (Facet5)	Will	Energy	Affection	Control	Emotionality
Hogan (HPI)	Ambition	Sociability	Interpersonal Sensitivity	Prudence	(-) Adjustment
Cattell (16PF)	Independence	Exvia	Pathemia	Control	Anxiety
Eysenck (EPQ)		Extraversion	Tender Mindedness	Conservatism	Neuroticism
Gough (CPI)	Independent Thought	Social Extraversion	Sensitivity	Conventionality	Neuroticism
SHL (OPQ)	Vigorous	Extraversion	Abstract	Methodical	(-) Emotionally Stable
Costa and McCrae (NEO-PI)	(-) Agreeableness	Extraversion	Openness	Conscientiousness	Neuroticism
Lee & Ashton (HEXACO)	(-) Agreeableness	eXtraversion	Honesty/Humility + Openness	Conscientiousness	Emotionality
Paltiel (15FQ)	Independence – Agreeableness	Extraversion – Introversion	Pragmatism – Openness	Low Self Control – Low Self Control	Low aNxiety – High aNxiety
Rust (RPQ)	Tough Minded – Agreeable	Introversion – Extroversion	Conforming – Creative	Unstructured – Detail Conscious	Confidence – Sensitive
Myers Briggs (MBTI)	T–F	E–I	S–N	J–P	See Note 1
Margerison & McCann (TMI)	Organisers	Explorers	Advisors	Controllers	
Schein	Power	Achievement	Support	Role	
Handy	Power	Task	People	Role	
Kolb (LSI)	(-) Accommodator	Diverger	Assimilator	Converger	
Honey & Mumford (LSQ)	(-) Reflector	Activist	(-) Pragmatist	Theorist	
Marston (DISC)	Dominance	Influencing	See Note 2	Compliance	Not included
Schutz (FIRO-B) E = Expressed W = Wanted	Control (E)	Inclusion (E & W)	Affection (E & W)	–	Control (W)

### Notes

- 1 All these models are founded on Carl Jung's theory of preferences which did not actually identify Emotionality as a separate factor. Therefore the construct is missing from all models based on his work.
- 2 Marston labeled this 'Submission' although many of the later versions have labeled it 'Steadyness'. Submission is the antonym of Dominance so semantically these are the opposite ends of the same scale. In fact studies have shown correlations between D and I of -0.71 which supports the idea that they are in fact opposite ends of the same scale.

## References and notes

- 1 An example of how seriously some people take this can be found in Kollerstron N (2005), How Ertel rescued the Gauquelin effect, *Correlation Journal of Research in Astrology*, 23, 1, 34–44.
- 2 Sheldon based his ideas on a theory that human physique developed according to the contribution of different layers of embryonic development. His book, *The Atlas of Men*, outlines it. For a decent summary, see: Somatotype and constitutional psychology (2011). Retrieved 2 June 2011, from [en.wikipedia.org/w/index.php?title=Somatotype\\_and\\_constitutional\\_psychology&oldid=437934384](http://en.wikipedia.org/w/index.php?title=Somatotype_and_constitutional_psychology&oldid=437934384).
- 3 Today factor analysis is available at the press of a button. It is illuminating to try even a part of it by hand so we can be made aware of the staggering amount of sheer effort these pioneers put into their research.
- 4 Miller GA (1956). The magical number seven, plus or minus two: some limits to our capacity for processing information. *Psychological Review*, 63, 81–97.
- 8 Lanyon RI & Goodstein LD (1982). *Personality Assessment* (2nd Ed). New York: Wiley.
- 9 McCrae RR & Costa PT Jr (1989). Reinterpreting the Myers-Briggs Type Indicator from the perspective of the Five-Factor Model or Personality. *Journal of Personality*, 57, 17–40.
- 10 Harvey RJ, Murry WD & Markham SE (1995, May). A 'big five' scoring system for the Myers-Briggs Type Indicator. Paper presented at Annual Conference of the Society for Industrial and Organizational Psychology, Orlando.
- 11 Norman WT (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. *Journal of Abnormal and Social Psychology*, 66, 574–583.
- 12 Costa PT Jr & McCrae RR (1976). Age differences in personality structure: A cluster analytic approach. *Journal of Gerontology*, 31, 564–570.
- 13 Rokeach M (1960). *The open and closed mind*, New York: Basic Books.
- 14 Holland JL. *The psychology of vocational choice*, Waltham, MA: Blaisdell.
- 15 McCrae RR & Costa PT Jr (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81–90.
- 16 Digman J M & Takemoto-Chock NK (1981). Factors in the natural language of personality: Re-analysis and comparison of six major studies. *Multivariate Behavioral Research*, 16, 149–170.
- 17 Brand CR (1984). Personality dimensions: An overview of Modern Trait Psychology. In J Nicholson & H Beloff (Ed) *Psychology Survey 5* (175–209). Leicester: British Psychological Society.
- 18 Digman JM & Inouye J (1986). Further specification of the five robust factors of personality. *Journal of Personality and Social Psychology*, 50, 116–123.
- 20 Noller P, Law H & Comrey AL (1987). Cattell, Comrey and Eysenck Personality factors compared: more evidence for the five robust factors? *Journal of Personality and Social Psychology*, 53, 775–782.
- 24 Zuckerman M, Kuhlman DM & Camac C (1988). What lies beyond E and N? Factor analyses of scales believed to measure basic dimensions of personality. *Journal of Personality and Social Psychology*, 54, 96–107.
- 25 Brand CR (1994). Open to experience – closed to intelligence: Why the 'Big Five' are really the 'Comprehensive Six'. *European Journal of Personality*, 8, 299–310.
- 26 Lee K & Ashton MC (2004). The HEXACO Personality Inventory: A new measure of the major dimensions of personality. *Multivariate Behavioral Research*, 39, 329–358.
- 27 McKenzie J (1998). Fundamental flaws in the five factor model: A re-analysis of the seminal correlation matrix from which the 'openness-to-experience' factor was extracted. *Personality and Individual Differences*, 24, 475–480.
- 28 Cheung FM, Leung K, Zhang J, Sun H, Gan Y, Song W & Xie D (2001). Indigenous Chinese Personality Constructs: Is the Five-Factor Model Complete? *Journal of Cross-Cultural Psychology*, 32, 407.
- 29 Szirmák Z & De Raad B (1994). Taxonomy and structure of Hungarian personality traits. *European Journal of Personality*, 8, 95–117.

- 30 *Social Introversion-Extraversion as a Heritable Response* Sandra Scarr *Child Development*, Vol 40, No 3 (Sep 1969), 823–832.
- 31 Canli & Turhan. Functional Brain Mapping of Extraversion and Neuroticism: Learning From Individual Differences in Emotion Processing. *Journal of Personality*, Vol 72, Number 6, Dec 2004 , 1105–1132.
- 32 Luo X, Kranzler HR, Zuo L, Zhang H, Wang S, Gelernter J. CHRM2 variation predisposes to personality traits of agreeableness and conscientiousness. *Human Molecular Genetics* 2007 16(13): 1557–1568.
- 33 Luo X, Kranzler HR, Zuo L, Wang S & Gelernter J. Personality traits of agreeableness and extraversion are associated with ADH4 variation. *Biological psychiatry*. ISSN : 0006-3223, INIST shelf number: 11378. Elsevier Science 2007, Vol 61, no 5, 599–608.
- 34 [www.slate.com/id/2108284](http://www.slate.com/id/2108284).
- 35 De Bellis MD, Keshavan MS, Beers SR, Hall J, Frustaci K, Masalehdan A, Noll J & Boring AM. *Sex Differences in Brain Maturation during Childhood and Adolescence*, *Cereb. Cortex* (2001), 11(6): 552–557 doi:10.1093/cercor/11.6.552.
- 36 [midtopia.blogspot.com/2007/02/genetics-of-altruism.html](http://midtopia.blogspot.com/2007/02/genetics-of-altruism.html).
- 37 Barrick MR & Mount MK (1991). *The Big Five personality dimensions and job performance: A meta-analysis*. *Personnel Psychology*, 44, 1–26.  
Also see: Tett RP, Jackson DN & Rothstein M (1991). Personality Measures as predictors of job performance: a Meta-Analytic Review. *Personnel Psychology*, 44, 703–742.
- 38 Some people have questioned the relationship between the MBTI and these Big5 factors. However the evidence shows quite a clear relationship. Costa and McRae (1989) and Adrian Furnham (1996) found this:

	Costa and McRae (1989)					Adrian Furnham (1996)				
	E	O	A	C	N	E	O	A	C	N
E-I	-0.74					0.70				-0.25
S-N		0.72					-0.48			
T-F			0.44				0.24	0.47		
J-P				-0.49					0.52	
Correlations significant at 0.000										

Two points emerge. First, for EI, SN, TF and JP there are clear relationships. Second, the MBTI has no equivalent measure of Emotionality (neuroticism). Note that the strongest relationship for S–N is Openness to Experience. In Facet5 terms this relationship is blurred since Facet5 has a different interpretation of the Openness element.