



Sport and personality

John Ireland explains the impacts of personality on sporting performance

One hundred years ago at the University of Illinois, Coleman Griffith became the first academic to conduct systematic research into sport psychology. His interests concerned learning sports skills and relationships between personality and sports performance. It seems fitting therefore to address the definitions and major theories around personality in sport, drawing upon a range sporting examples that are relevant to all examining boards.

Given that it is also 30 years since the first A-level PE students completed the course, these examples will be drawn from the last three decades of outstanding sporting achievement (Table 1).

Personalities

There are numerous definitions of personality. All take slightly different approaches but most have common

elements. Eysenck (1964) asserted that personality involved:

‘stable organisation of intellect, temperament and physique which determine an individual’s unique adjustment to the environment.’

This view provokes discussion as to whether there is an ideal stereotypical personality best suited to sport, or if sport impacts to shape personality, giving it a focused and competitive edge (Box 1). During

the mid-twentieth century, there were believed to be links between physique and personality (Sheldon’s somatotyping) but recent research has proved connections to be slender.

Hollander’s view (1967) is more generalised but also includes psychological and physiological factors as cornerstones of personality:

‘Personality comprises the sum of an individual’s characteristics that make them unique.’

Table 1 Outstanding sporting achievements

Team achievements	Individual achievements
2003 England rugby union World Cup triumph — the first win for England in the Rugby World Cup	1992 Tanni Grey-Thompson’s four gold medals in the Barcelona Paralympics drew attention to Paralympic competition
2005 The England cricket team regained the Ashes — the test series was acclaimed by the BBC ‘as the most thrilling ever’	2005 Ellen MacArthur broke the world record for the fastest solo circumnavigation of the world
2014 England’s women’s team won the rugby union World Cup	2012 Jessica Ennis-Hill secured the gold medal in heptathlon during the London (2012) Olympic Games
2016 Great Britain women’s hockey won gold at the Rio Olympics	2013 Andy Murray won the Wimbledon Championship title, ending Britain’s 77-year wait for a men’s champion
2018 Geraint Thomas became the first Welshman to win the Tour de France, assisted by a dominant Sky cycling team	

Key term

Stable Factors that remain constant and relatively unchanging.

Gill (2000) appears to dismiss physical influence in her definition, stating:

“Personality is the pattern of psychological characteristics that makes a person unique.”

The element common to this selection of definitions is the unique nature of behaviour. Uniqueness of personality impacts significantly on sports performance.

All participants enter the competitive arena with a collection of personal variables. These include attitude, a measure of aggression, levels of anxiety and degrees of arousal, which, if optimised, facilitate maximum potential. It is believed these variables develop as products of genetic inheritance and the result of learning from environmental situations. Personality theories may help to explain individual differences in sport-specific behaviour.

Personality theories

This article will consider three views that address the origins and development of personality:

- trait perspective
- social learning perspective
- interactionist perspective

Trait perspective

This approach claims that origins of behaviour are innate and genetically programmed. Traits are believed to be

Box 1

Trait compatibility in rugby

Players in the victorious England Rugby World Cup team of 2003, such as Johnny Wilkinson and Lawrence Dallaglio, demonstrated the capacity to make intelligent split-second decisions during play. All team members had a physique somatotype that was fundamentally mesomorph and suited to physical contact.

Questions arise over whether these attributes were bestowed genetically, thus forming a personality compatible with rugby, or whether they had been acquired through playing experience to form necessary patterns of behaviour.

stable, enduring and consistent in all situations, causing human behaviour to be predictable. This claim is difficult to support. Furthermore, trait perspective does not take into account environmental influences, which invariably impact on personality. Therefore the credibility of trait perspective is questionable.

However, psychologists do agree that certain personality characteristics are inherited. These are identified and described in two major trait theories.

Personality types

Eysenck (1968) recognised four primary personality traits or types. These are depicted on a two-dimensional model (Figure 1). Primary traits are underpinned by sixteen secondary traits, which comprised Cattell’s 16PF test. Although there can be extremes (e.g. in extroversion or neurosis) both primary and secondary traits should be considered on a continuum. You need to be able to describe Eysenck’s primary traits (Table 2).

The significant difference between extroversion and introversion is the contrasting reticular activating systems (RAS). Extroverts are believed

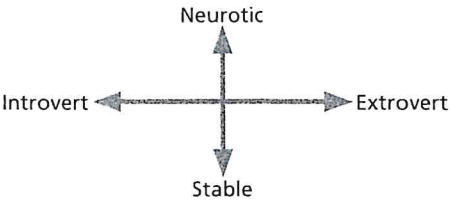


Figure 1 Personality types

to have an RAS which reduces effects of sensitivity to external stimuli, e.g. presence of an audience. This disposition causes slow increases in arousal. More intense external stimulation is required before extrovert personalities attain optimal arousal levels, therefore performing in front of a large crowd would benefit the extrovert.

The opposite applies to introverts, who tend to have a highly sensitive RAS, causing rapid increases in arousal levels. Therefore, introverted

Key term

16PF test A self-report questionnaire. On a scoring continuum of ten an individual can assess themselves on sixteen contrasting personality characteristics.

Arousal A state of preparedness or excitement.

Table 2 Eysenck’s personality traits

Personality type/ primary trait	Description
Extrovert	Affiliates well with other people Outgoing, gregarious and sociable Seeks excitement, e.g. danger, audiences and testing situations May find prolonged concentration difficult Becomes aroused more slowly than an introvert Has low sensitivity of the RAS
Introvert	Tends to be shy and reserved Prefers isolation from others Avoids excitement Good at concentrating for prolonged periods Becomes aroused more quickly than an extrovert Has high sensitivity of the RAS
Neurotic	Displays extreme and unpredictable mood swings Moods are inconsistent Experiences high degrees of anxiety Recovery from anxiety is slow
Stable	Displays predictable emotions in appropriate situations Moods are predictable Tends not to experience intense anxiety Recovery from anxiety is rapid

ex-tro-vert /'ekstrə
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 trib).

Extroverts have a low sensitivity of the RAS, and should perform better in front of a crowd

personalities repel external stimulation, often appearing shy and preferring isolation from others.

Due to differences in RAS, it is believed extroverts are suited to team games, while introverts prefer individual sports. This view is generalised and evidence is inconclusive. It is possible that the behaviour of an individual is a composite of extroverted and introverted characteristics, with one or the other primary trait being dominant (Box 2).

Narrow band theory (Girdano 1990)
 This approach distinguishes between Type A and Type B personalities (Table 3). Although it is a trait theory, there is no connection with Eysenck and Cattell's introvert-extrovert continuum. Narrow band theory focuses on the levels of anxiety experienced by different personalities and factors which may present themselves as outcomes of varying intensities of anxiety. The theory exposes signs of stress so management can be implemented.

It is thought that Type A personalities are more likely to succeed in sport because of a competitive instinct, but little evidence supports this claim.

Box 2 Extroversion plus introversion

Andrew 'Freddie' Flintoff was the leading all-rounder in England's memorable 2005 Ashes success. In retirement he continues to crave the excitement of a test, and is now a television celebrity displaying an image that is stereotypical of extroversion. However, Flintoff enjoys private periods of reflection.
 Also in 2005, Ellen MacArthur sailed 27,000 miles in 71 days to break the world record for solo navigation of the world. Unimaginable solitude was endured and she might be categorised as an ultimate introvert stereotype. On the contrary, Dame Ellen has lost her passion for solo racing and now heads a charity involving business and education, and has a demanding public schedule.

Table 3 Narrow band theory

Type A characteristics	Type B characteristics
Prone to experience high stress levels	Tend to be relaxed and less prone to stress
Likes to work fast and lacks patience	Works more slowly, patiently and methodically
Tend to multi-task and rush when challenged	More creative and imaginative when challenged
Highly competitive, promoting anger and hostility	Enjoys achievement but experiences less stress when losing
Likes control and finds delegation difficult	Does not seek to control others

In addition, it is believed that Type A personalities tend to choose team game activities, but the evidence is again tenuous.

The narrow band approach is generalised — athletes do not simply fall into one category and are more likely to register in the middle of the spectrum. England's hockey goalkeeper Maddie Hinch appears to have a mixture of Type A and B characteristics (Box 3).

Narrow band approach raises awareness regarding the consequences of high anxiety levels, enabling players

and coaches to implement stress-management strategies to improve sport performance.

Social learning perspective
 Social learning, in direct contrast to trait theory, proposes that all behaviour is learned. Learning occurs by way of assimilating environmental experiences and through the influence of other people. Personality is therefore not genetically programmed. The social learning view would explain why behaviour is influenced by significant role models and why

Box 3 Type A plus Type B

Hockey goalkeeper Maddie Hinch was the hero of England's win against the Netherlands that secured the gold medal at the 2016 Olympic Games. Known to her team mates as 'Mad Dog' for her uncompromising approach to play, Hinch made a series of remarkable saves in the victory. With a highly competitive reputation, she remained calm and controlled, making two saves in the penalty shootout. Hinch attributed her performance to the game plan adopted after meticulously analysing the Netherlands' approach in previous matches.



Maddie Hinch in the Rio 2016 Olympics hockey final

twins separated at birth develop different personalities.

The psychologist Bandura (1977) supported the social learning approach. Bandura believed learning was stimulated by environmental experiences. Two processes are involved in social learning:

- Behaviour of others being imitated through observation.
- New behaviour being acquired after observation only when it is endorsed through social reinforcement.

With 11 gold medals, six London marathon wins and 30 world records, Tanni Grey-Thompson is now inspiring young Paralympians, creating new attitudes to disability (Box 4).

Social learning is also termed vicarious learning. It is most likely to take place in the following conditions:

- Behaviour being observed is demonstrated by a 'significant other' or a role model of high status.
- The role model is powerful and authoritative.

■ Copying is most effective when the observer and the role model are of the same gender.

■ Both observer and model have similar abilities.

■ The observer is motivated to adopt the norms and values of the role model.

The social learning perspective has drawbacks. It does not take into account genetically inherited factors and implies behaviour is consistent if similar environmental circumstances are repeated.

Interactionist perspective

Modern thinking has moved away from trait theories and towards social learning theories. However, according to Gill most personality psychologists prefer the interactionist approach as an origin of behaviour. This view agrees that people are born with certain personality characteristics that can be modified by environmental situations to formulate behaviour.

Box 4

Powerful role models

A powerful role model is essential to the process of social learning. Tanni Grey-Thompson was an inspiration to Paralympic gold medal swimmer Ellie Simmonds and many others.

'Tanni was the first UK athlete in Paralympic sports to cut through to mainstream sports followers. She was a very successful athlete, but she also had a strong sense of identity and character, and a compelling personal story.'

Tim Hollingsworth, chief executive of the British Paralympic Association

Jessica Ennis-Hill became the face of the 2012 Olympics after winning gold in the heptathlon. Being below average height for her event, she exceeded expectations and is an inspirational example to a new generation of potential champions.

Therefore, the interactionist approach is a combination of trait and social learning theories.

Hollander (1971) considered personality as layers forming concentric rings (Figure 2). Each layer has a name and specific function, and becomes progressively difficult to probe.

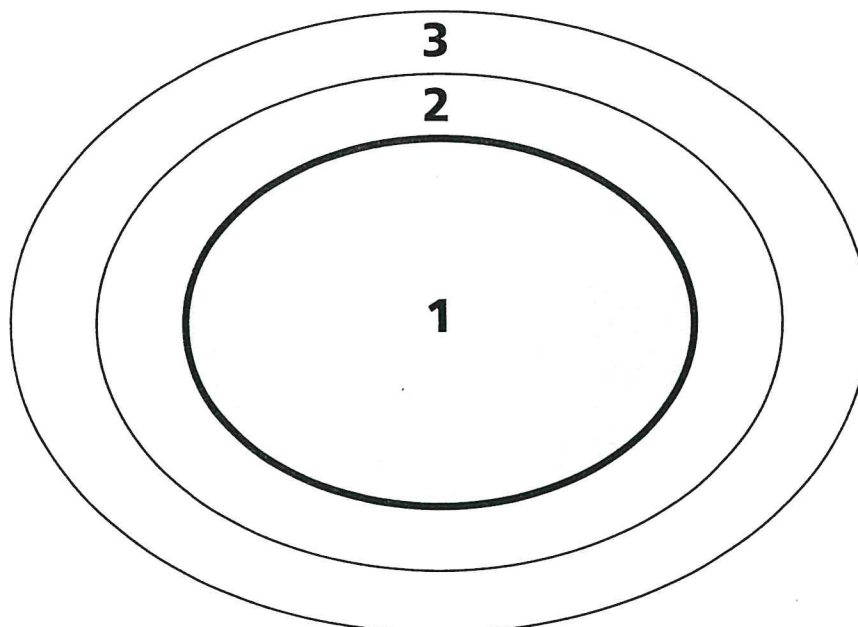
The interactionist approach does not provide simple personality predictions. Behaviour is the function of numerous personality, environmental and situational factors. Therefore the interactionist approach explains why behaviour is complex and unpredictable (Box 5).

Box 5

Changing behaviour

Had Chris Froome won the Tour de France in 2018 it would have been his fifth victory in the event, equalling the record for most wins. Froome remains ambitious and highly motivated to sustain his dominance. However, he set aside personal ambition and elected to play a supporting role in the 2018 tour, helping Geraint Thomas to claim the winner's vest for the first time. Thomas paid tribute to Froome's unselfishness, saying 'Froome is one of the toughest guys I know, mentally'.

1 Psychological core: the 'real you'. It is almost impossible for psychologists to reach this level for research purposes, as the individual will protect this private centrepiece. The core is not revealed, storing the concept of true self. It is permanent and unaffected by environmental variables



3 Role-related behaviour: the surface of personality. It is superficial and directly in contact with the social environment. Role-related behaviour is determined by our perception of a situation. Perception is influenced by many factors so it can change. Therefore actions of the individual may not be a typical response but an uncharacteristic mode of behaviour

2 Typical responses: this level represents the usual manner in which we respond to an environmental situation. A typical response is learned and a product of experience. Such responses may indicate the nature of the core

Figure 2 Personality circles

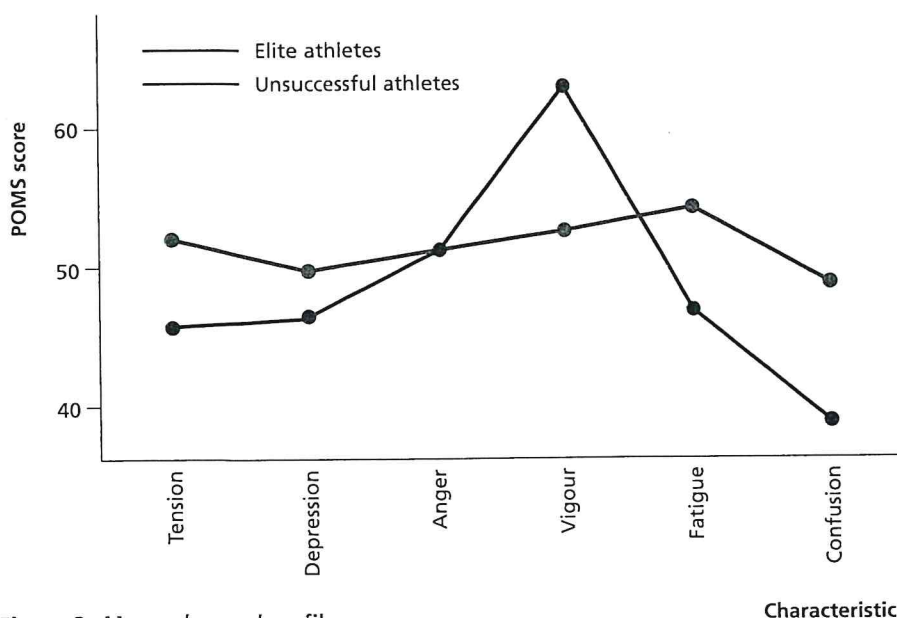


Figure 3 Morgan's mood profile

Profile of mood states

It has been seen that a trait personality profile is not a useful indicator of sporting potential. It is believed measuring an athlete's mood prior to competition will give more accurate behaviour predictions (McNair 1972).

This led to the implementation of the profile of mood states (POMS) index, which claims to be a valid measure of interaction between

personality and the situation. POMS has a scale of six characteristics:

- tension
- depression
- anger
- vigour
- fatigue
- confusion

Morgan (1979) produced a mood profile for elite athletes which shows a consistent iceberg-shaped profile

Box 6 Maggie Alphonsi

Alphonsi is known to her rugby team mates as 'The Machine' because of her high work-rate and tenacity. She is arguably the greatest open-side flanker England has produced. A World Cup winner (2014), Maggie won 74 caps and scored 20 tries, and is the first woman to be inducted into the RFU Hall of Fame. It is likely that she would register an iceberg profile.

(Figure 3). The obvious difference is that elite athletes score far higher on vigour than those who are less successful. Bell and Howe (1988) found iceberg profiles in triathletes and Gat and McWhirter (1998) found the same pattern in cyclists. Gill reports excessive vigour in rowers, track athletes and Olympic wrestlers.

According to Gill, iceberg profiles do not imply suitability for high-level sport. However, success in sport may lead to more positive profiles and enhanced psychological wellbeing (Box 6).

John Ireland is an experienced A-level PE teacher and author.