

## THE PSYCHOLOGICAL IMPLICATIONS OF INJURY

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*The psychological factors which would render an individual more susceptible to injury have been discussed previously (Sanderson, 1977). The present paper is concerned with the psychological problems that can follow injury and that could prevent or delay recovery.*

Many sportsmen have few psychological problems stemming from injury but there are however those individuals who become injured and as a result experience psychological problems which are in excess of what one might predict from the overt circumstances.

Several interacting factors can have an influence on the intensity of the psychological reaction:—

1. The individual's history of injury.
2. The nature of the injury interacting with the type of sport. The interaction is important in that a severe injury alone may not be psychologically too damaging.
3. The level of competition in which the injury has occurred, an implication of which is that the psychological effects of injury are more worthy of serious study in relation to what might be termed "serious" sport. Physical fitness is also important; the sportsman who is physically fit, having become adapted to fairly severe physical stresses before injury, can more easily adapt to the demands of a physical rehabilitation programme — he is less likely to "acquiesce" to the disability (Bender, Renzaglia, and Kaplan, 1971).

Then there is the individual's attitudes as dictated by others, his self concept, his degree of motivation, all of which can be embraced by the next major heading:—

4. Personality structure as a factor in psychological reaction to injury.

The importance of personality in the reaction to injury can be demonstrated by making reference to the theories of Eysenck who has studied the structure of personality.

He has identified two major dimensions along which the personality of individuals can vary (Eysenck, 1957):—

- (i) EXTROVERSION — INTROVERSION (E-Scale)
- (ii) NEUROTICISM — STABILITY (N-Scale)

Extroversion is a commonly observed trait among sportsmen and the typical extrovert is sociable, outgoing, carefree, changeable, impulsive, assertive, physically active and optimistic. The typical introvert is hesitating, cautious, reflective, reliable and pessimistic.

Eysenck proposed a hypothesis associated with E which is of particular relevance, i.e. the Inhibition hypothesis. This states that cortical inhibition is higher in extroverts, making them less sensitive and less able to tolerate tasks of a routine nature — inhibition accumulates to a greater extent in the CNS. The relative insensitivity means that they have strong nervous systems and the effort to reduce cortical inhibition makes them crave for excitement. Eysenck (1967) reported that extroverts have higher pain thresholds and Lynn and Eysenck (1961) found a correlation of .69 (N = 30) between extroversion and pain tolerance.

A picture is already emerging then of two extreme personality types which would produce quite different reactions to similar injuries. On the one hand there is the impulsive, optimistic, changeable extrovert. His insensitivity to pain and need for excitement make him impatient to return to competition. He may be unable to accept the routine and discipline of the treatment phase. Therefore, the need for caution must be impressed upon him by those interested in his full recovery.

On the other hand, there is the hesitating, restrained, pessimistic introvert for whom the physical trauma has more psychological impact. This individual will need encouragement and reassurance during rehabilitation.

The difference between these extremes is well illustrated by the kind of question they might ask after severe sports injury. The extrovert asks "When can I play again", whereas the introvert asks "Can I play again?".

Considering the other of Eysenck's dimensions, people high on neuroticism tend to be nervous, anxious, depressive, moody and emotionally volatile. They are liable to neurotic breakdown under stress. Stable people on the contrary, are even-tempered, calm and emotionally reliable. So the tendencies outlined in relation to extroversion-introversion could be reinforced or diminished depending upon the degree of neuroticism of the individual. Obviously both the stable extrovert and stable introvert will be least problematical, unless of course they suffer severe physical trauma associated with a discouraging prognosis. In such circumstances even the most stable of individuals can develop severe psychological problems.

Proneness to anxiety appears to have more association with introversion. Eysenck (1963) has suggested that phobias, anxiety states and similar phenomena are more likely to develop in the introvert, who seems to turn his neurosis in on himself. For this reason the trauma of sports injury will be magnified in the neurotic introvert. He is beset by psychological conflicts on which anxiety feeds. He may for instance show signs of APPROACH-AVOIDANCE conflict (Dollard and Miller, 1950). He wishes to return to sport because of personal enjoyment or external pressures. At the same time, the injury has turned his natural caution and pessimism into extreme apprehension. He may distort reality to the extent of being irrational about the possibilities of recurrent injury, e.g., the soccer player badly injured in a 50/50 tackle who subsequently avoids such situations at all costs. The irony is that the behaviour adopted to avoid anticipated injury could well lead to a greater probability of the player being injured again. Reilly (1975) did find a relationship between apprehensiveness and susceptibility to joint injuries.

In the light of this information perhaps it is as well that all the evidence suggests that introverts, and particularly neurotic introverts constitute only a small minority of competitive sportsmen.

Self-concept or self-esteem is high in the extrovert and when he tends towards instability, the self-concept may be perceived as being threatened. The self-concept may be highly dependent on physical appearance and physical function – and both may be impaired by injury, resulting in emotional stress associated with loss of self-esteem.

If the injury is not severe, such an individual may "play through it" rather than suffer the indignity of succumbing to it. If the injury is incapacitating, his neurotic recklessness may be exhibited in unwillingness to accept treatment and a too early return to competition. He lays the groundwork for recurring injury maybe of a more serious nature and increases the likelihood of the development of chronic injury-proneness.

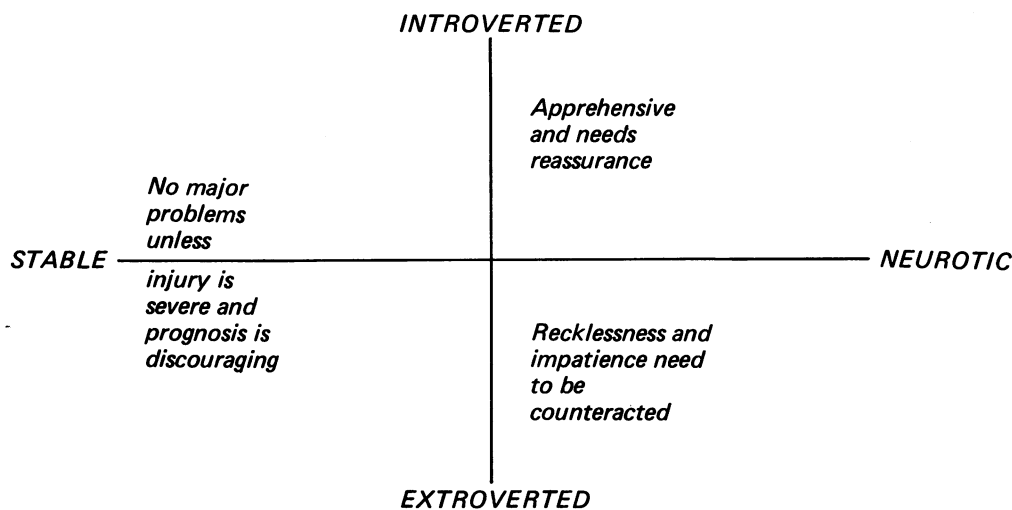


Figure 1. Psychological implications of injury as related to Eysenck's two personality dimensions.

In the conditions I have described, the psychological traumas as a result of injury vary markedly, but the common element is that emotional factors outweigh cognitive or intellectual factors. The role of those involved in rehabilitation is to instil in the mind of the sportsman a realistic appreciation of the prognosis of the injury and thereby inhibit the development or persistence of counter-productive emotions. As with the injury-prone athlete, the coach, the doctor and the physiotherapist should attempt to understand the individual rather than considering and treating an injury *per se*. In the more extreme cases, it would be an obvious advantage to the injured sportsman if all those with a vested interest in his complete recovery cooperated and pooled information in order to make the treatment phase more effective. At the least, this will be to the long-term benefit of the reckless and the over-cautious sportsman.

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## A PRACTICAL VIEW OF SOCCER INJURIES

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### INTRODUCTION

Risk is inherent in playing soccer. This may be attributable to sources extrinsic or intrinsic to the player. In general the greater the reward, the greater is the risk a player is prepared to accept. Risk taking is an essential ingredient in sport and the physical injuries sustained in playing games is taken to be a facet of the psychology of sport (Browne and Weightman, 1975). The goalkeeper is directly involved in play to a greater extent than any individual outfield player (Reilly and Thomas, 1976) and as he enacts an essentially different role is more exposed to hazards. In general players are vulnerable at a number of specific sites.

### SITES OF VULNERABILITY

#### The head

Players are coached to make contact with the ball in heading at the frontal hairline fringe. A misjudgment against a powerfully driven kick can produce intra-cranial damage. Heading such drives with feet firmly anchored to the ground rather than off it can aggravate the resultant shock to the skull and spinal column.

Injury is frequently caused by heads clashing during heading duels. A player who is challenged on his blind side may be unaware of his immediate contestant and unprepared for the consequent clash. A defender challenging from behind