It is helpful to retrace steps in the historical viewpoints on pain.

In 1644, Descartes suggested the " Specificity Theory " which essentially saw pain as the product of a simple stimulus-response mechanism.

This theory held sway until the mid-20th. Century.

The recent neuromatrix theory of Melzack (1998) has broken the Cartesian link between injury and pain. It is now thought of as multidimensional. What is termed the "neurosignature" is present in a widely distributed "neural network".

The "neuromatrix" is the "body-self". This can explain some of the situations described above.

Of course, pain is a subjective sensation and is often associated with psychological distress. (hence the IASP definition includes the term "emotional experience").

Psychological pain theories have ranged from pain being seen as a consequence of repressed aggression (Engel 1951) to the concept of psychogenic pain and the "pain-prone patient" (also Engel 1959) and later to being seen as a psychological state- if no physical abnormality could be found, then the nature of the psychological disturbance should be sought. (Merskey 1967).

The latter approach is still commonplace amongst doctors using what is known as the "traditional medical model." All these theories were based on the Cartesian stimulus-response model.

In 1968, Melzack (who was also partly the originator of the well-known "Gate theory") and Casey stated:

"To consider only sensory features of pain, and ignore motivational and affective [mood] properties, is to look at only part of the problem, and not even the most important one at that."

Later, in 1975, Melzack was instrumental in designing the McGill Pain Questionnaire, which is still in use (though often in a shortened form).

This includes questions not only about sensory perceptions (whether the pain is sharp, dull, thermal pressure, temporal [time], spatial [location and radiation] features) but also about affective features (tension, autonomic symptoms, fear etc.) and evaluative aspects.

This was designed to find anchor words expressing the subjective overall intensity of the total pain experience.

The concept of " Total pain" was also put forward by Cicely Saunders who described a wide gamut of other factors besides sensation of pain which go to make up the whole experience.