

The Mass of Emotions

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“What we feel, and what we experience, is the physical materiality of an internal movement that we call emotion”.

The phenomenon “emotion” has always been recognized on the basis of the terminological definition given by the Greeks during the Hellenistic period of maximum expansion of philosophical thought. For that culture, emotion was defined as “blood movement”. Literary metaphors then followed this interpretative model speaking of “heart sinking”, “shortness of breath” and more.

All this identifies the deep root from which the latest discoveries and the latest studies seem to draw inspiration to confirm, from a purely and coldly scientific point of view, the fact that the emotigenic phenomenon has its certain spatial collocation.

Historically, starting from the research of the anatomical locations conducted by Brodman who became famous for his subdivision of the cerebral cortex into 52 regions, distinguished by cytoarchitectural characteristics, an attempt has been made to confine the activity of the brain/ mind in both anatomical and material senses. Its topography is still referred to in anatomical- functional studies, with the acronym BA (“Brodman’s area”, or “Brodman’s area”).

The latest studies and research seem to go further in this direction.

The objective, and in any case the future vision, but also the current one, increasingly denies the imponderability of the “mind” understood as a non-circumscribable and absolutely non- measurable reality.

The anatomical definition of the affective circuits defined by Panksepp has opened the horizon to new and more advanced visions on the controllability and measurability of cognitive productions and, above all, of affective ones.

Panksepp’s seven affective systems concentrate the production of emotional states, in other words of fundamental emotions, in the areas of the limbic system through the production of hormones in continuous dynamism and in correspondence with the two fundamental systems: Sympathetic and Parasympathetic.

The epigenetic approach has led directly to the definition of how the mechanisms of emotions can be “constructed”, or, to be more precise, the mechanisms of behavior linked to them.

Human behavior in a general sense is strictly connected with the limbic mechanisms defined by Panksepp.

The certainty that leads research in this direction is the undoubted relationship between us and what is generally defined as “the world or the external environment”.

As Einstein had defined “Field energy is the only force capable of changing matter...” Therefore, the set of electromotive forces that fluctuate around us, on this planet and in the rest of the known universe interact with us continuously and absolutely.

Therefore, the first source of our emotional universe, of the consequent cellular, neuronal, hormonal systems is: the environment that surrounds us and that is perceived. If we only think of our membrane receptors, ion channels, sodium-potassium pumps that produce cell activity and the neurotransmitters of our neuronal synapses, we can imagine this “force” as pure energy that then triggers our behavior in general.

The emotional dimension represents human behavior as a manifestation of the most evolved beings on the planet.

It is therefore conceivable, at a heuristic level, that the sequential process which originates this behavior would be a function: $Bu = F(P-S-E) \times t$. Bu (human behavior), F (function), P (perception of energies), S (sensation) E (emotion) multiplied by time (t). In a general sense, this functional formula would make us understand the substantial difference between “perception” and “sensation”; the first concerns the ability to receive energy in the form of substantially electromagnetic current frequencies but also of other origins; the second concerns the transformation of said perception into sensation, i.e. the activation of matter which gives rise to the “senses” (hormones, proteins, etc.) the third transformation factor is the Emotion which is directly connected to the sensation, the factor “time” determines the dynamism of the entire empirically verifiable process in people’s daily lives.

The general formula can be deduced from the function shown below, concentrating a possible reference paradigm in a more general and exhaustive definition:

$$Bu = (E-m) \times t$$

Highlighting that the root of general human behavior would be directly dependent on the field energy, transforming itself into matter in the considered unit of time.

The simplification of this last formula holds the not easy definition of the multiplicity of ways in which Energy is expressed in its forms both of a frequency and intensity nature.

The hypotheses are certainly very high in defining the individual quantities, at the frequency level, which may affect a certain type of membrane receptor both at the cellular and neuronal level. The intrinsic possibility of being able to highlight both the frequencies, which interact with these single types of receptors, and the quantity of proteins/hormones, which promote the emotional phenomenon, appears possible. We know that up to 12.5 million ions can pass through a single ion channel in the unit of time (1 sec.).

This quantity represents its physical weight measurable in UMA-Dalton unit of measurement which is frequently used for the mass of elementary particles, single atoms (atomic mass), molecules (molecular mass), ions, radicals.

Therefore, the weight of a reality related to a process of emotional behavior would be measurable according to its ionic current present in a neuronal chain, or even more directly due to the hormonal activities following the activation of the nerve signals that reach their destination. e.g. in the vagal or sympathetic system.

The place in which this quantity could have its basis of measurement and recognition would in any case always be the motility of the blood mass in the unit of time.

The cardiac rhythm and its variable modalities would be invaluable in tracing this parameter.

The line of continuity that would allow the parametrization and measurement of a behavior or an emotion would pass from the synergy between epigenetic, electromagnetic, neurobiological, psychological, physical, medical, mathematical and other methods and knowledge, in a harmonic taxonomy that opens up new questions and certainly produces more questions than answers.

However, the reality is that of getting ever closer to a tangible truth relating to the great “universe” enclosed in the “micro-universe” which is called Man [1-7].

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