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MOTIVATIONAL MECHANISMS AND THEIR ROLE IN BEHAVIOUR

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ABSTRACT:

Assessing the harmfulness of a person's behaviour implies knowing the neurophysiological mechanisms underlying the motivations, decisions and the structure itself of different behaviours. The literature data quoted from the works of great researchers are arguments that can support the clinical judgments elaborated by psychiatry experts for each analyzed case.

Keywords: behaviour, discernment-related disorders, motivational mechanisms

REZUMAT:

Evaluarea nocivității comportamentului unei persoane necesită cunoașterea unor mecanisme neuro-fiziologice care stau la baza motivațiilor, deciziilor și a însăși structurii diverselor comportamente. Datele din literatură, citate din operele unor mari cercetători, reprezintă argumente care pot susține judecățile clinice elaborate de experții psihiatri pentru fiecare caz expertizat în parte.

Cuvinte-cheie: comportament, discernopatie, mecanisme motivaționale

Introduction

Forensic psychiatric expertise (FPE) is a “scientifically argued interdisciplinary work offering justice a dynamic interpretation of behaviour” (1).

The scientific argumentation underlying the establishment of a discernment uses objective data, such as the results of imaging explorations, laboratory tests, psychological tests or diagnosis criteria mentioned in ICD-10, and subjective data obtained in the direct examination by experts, such as clinical signs and symptoms and their interpretation or the elaboration of clinical judgments, also using data from the medical and psychiatric theory and practice.

Discernment is the expression of the functionality of the entire psychological system, whose development level is expressed through behaviour, the capacity of deliberating and enforcing the decisions, which will lead to optimum adaptation, to a concrete situation and to reality, in general.

Discernment-related disorder is considered by Scripcaru, Gh. and collaborators to be the state of cancellation of the psychic capacity of choosing between several behavioural alternatives, like when the patient perceives reality incorrectly, when he loses the capacity of judging logically a situation or when he loses the capacity of learning from his own experience and of representing and foreseeing the consequences of his own deeds (1 p. 189). Behind deliberation and decision making, there are structures and functional mechanisms whose normality ensures the premises of the existence of psychic capacity and/or discernment.

In the behavioural analysis, the exploration of motivation has an important criminological significance in establishing the diagnosis and prognostic, as it allows the penetration in the intimacy of the psychic gesture and the mechanisms governing it, the penetration in the human psychology itself. In the activity of evaluating discernment, one must take into account the structure and the integrity of the conscience or the personality structure, the degree of the personality development and of motivated organization of the deed, and the reasons that led to the commission of the crime.

Since there are discussions regarding the semantic content of the notions of reason and mobile, both involving consciousness, but the mobile also admitting the possibility of unconsciousness, we will use the term motivation, including in it both of the mentioned significances.

The general term “motivation” is used to designate “the assembly of mechanisms determining: 1. the activation of an act or behaviour; 2. the orientation of behaviour – of attraction to a purpose or, on the contrary, of rejection or escape; 3. the intensity of the energetic mobilization, emotion, attention...” (2).

All the hypotheses and data offered by psychology regarding the motivational processes underlie the category or notion of “need”. Referring to the physiological needs, Berthiaume, F. (3) shows that the “emergence of biological unbalances (thirst, hunger) or psychological unbalances (the need to be approved by others, the need to succeed), be they higher or lower, push the individual more or less intensely to manifesting one behaviour or another, with the purpose of reestablishing balance”.

The researches done in the field of instincts show the fact that “there is a motivational mechanism tightly associated to the motor system which determines the approach to any stimulus transmitted on this path. The mechanism can only be controlled by one stimulus at a time. This stimulus is selected by a network of systems competing with each other and centered on the hypothalamus. The systems bring information about the needs of the body and about a recent satisfaction or experience related to the purpose. They also determine the order of information priority, depending on the more pregnant needs and the purposes that are easier to fulfill”. (4)

Neurophysiologists demonstrated as well that “the motivation notion encloses a motor behaviour that converts endogenously a more or less specific energy necessary to activate and maintain a behavioural sequence...”. (5) This means that the determination of a state of motivation implies the connection between the hypothalamus, which receives the fluctuations of certain physiological parameters, such as glycemia, osmolarity, level of sexual hormones, temperature etc., and the limbic

system, which makes available both the mnemonic repertoire (action schemes) and the necessary energy.

At the brain's level, structures have been identified (*area 24*; of the anterior side of the cingulate gyrus or the *mesolimbocortical pathway*, with the cell bodies in the ventral tegmentum and with projections in the nucleus accumbens and prefrontal cortex), which are part of the affective circuits and whose destruction determines the loss of the capacity of initiation, and of activation of the voluntary actions. (6) This fact suggests and supports, as far as our study is concerned, that the energy necessary to activate and maintain behavioural sequences comes precisely from the affective circuits and from the AARS level of the brain stem.

On the other hand, in one of his researches, Pierre Karlé (5) established that "the behavioural effects of stimulations of the lateral hypothalamus are essentially motivational, and many other researchers considered that an unspecific appetitive or adversative behaviour is activated in such cases". He reminds of the researches done by Olds (1958) and Goldstein (1970), Hoebel and Thompson (1969), centered on the self-stimulation mechanisms, ascertaining that "the hypothalamic activation models more or less selectively the effects of positive reinforcement (pleasure, reward) and negative reinforcement (displeasure, punishment), related to the anticipation of the results that can be obtained through such behaviour".

There are researchers, among whom H. Lersch (7), who talk about a hierarchized motivational construct based on primary instincts, which are fundamental elements of life, that determine and support all the other motivational processes (the conservation instinct and the sexual instinct or specifically human motivations, such as selfishness, the desire for power, or social reasons of goodwill and love, etc.).

Once a change in the (physiological, psychological, social, etc.) parameters is received, a functional state is activated and along with it the need to release it, to escape this state, by fulfilling the purpose, meaning by satisfying the necessity.

The mental representation of the purpose, which becomes the magnet of attraction and orientation of the whole behaviour, activates the impulse towards action and the establishment of a configuration of significances that it has for the person concerned. A short-circuit between the motivation energy, purpose and the significance for the self implies a selection of reasons, both through mental approach to the purpose value and through the force of the motivational act. One of the most subtle, complex and important actions of structuring the human behaviour is fitting the reasons to the value of the act. It is only after this step that the act is directed (process of positive or negative reinforcement) through a decision, with complete commitment (connection to area 24 and prefrontal cortex) and the partial motivation is turned into an essential, existential motivation. When the intended purpose is fulfilled (the necessity is satisfied), the motivational tension is released.

"Psychic life begins with (conditioned) reflex activity", as it is considered that "reflex activity is an adaptive sensorial-motor activity", which is intimately related to the instinctive activity. (8) "Man does not know a pre-established insertion in the world... Man is called to build himself the behavioural forms that will constitute his insertion in the world and – that point forward – his personality" (9).

Therefore, psychic life begins at the same time as the conditioned reflex activity, which is intimately related to the instinctive activity. From birth, each individual has reactivity to the environment, which is controlled by instincts. Their manifestation force is predetermined, as the type of upper nervous activity is innate (weak, strong-unbalanced, strong – balanced – inert and strong – balanced – mobile, according to Pavlov). This will determine, in turn, a certain type of temperament (melancholic, choleric, phlegmatic and sanguineous, according to Galen).

Based on a(n) (innate) particular manner of reactivity to the environment, people learn (build conditioned reflexes) by imitation, by game, by exercise, by study etc. to satisfy – in various manners – their instinctual, affective, psychological, material or social needs. One develops behaviours that start from certain reasons and lead to the fulfillment of certain purposes. This way, people build

their particular manner of being in the world and the sum of their behavioural acquisitions will represent their personality itself.

The more developed and more evolved a personality is, the more complex, more elaborate the behaviour in the environment will be, the more developed the knowledge and higher the understanding capacity. This way, the influence of the instinctual automatisms on behaviour will be weaker.

“Self-knowledge and perception or recognition is one of the results of the general activity of a person, of his actions. The role of the motor structure was demonstrated in the development of intelligence (Piaget), thought (Wallon), personality (Dewey)... Both the formation of the I and the entire subsequent personality development are owed for the most part to the structure of the person's activity and especially to dynamics, direction and connections of the act.” (10)

For these reasons, in the psychiatric forensic expertise, knowing the criminal's personality is essential, using to this purpose the only evaluation “instrument” available, more precisely his behaviour before and after the deed and the manner in which the deed was committed.

Goldsein, Grigson or Shah-Cocozza, quoted by Scripcaru (1, p. 291) elaborated behavioural harmfulness criteria, among which the history of violence and behavioural relapse are the risk factors of an increased behavioural dangerousness.

Bringing to attention these data of the specialized literature once again can be important or not to the psychiatry expert. They can be scientific arguments – already objectivized by the researches of several scientists in the world – that can be used to support clinical judgments, which are elaborated by psychiatrists in each and every analyzed case.

Understanding that the man in front of you is what his deeds show and that his deeds are the consequence of a manner of being (personality), built along the years, is essential for a correct evaluation of his discernment, dangerousness and risk of relapse.

As it is known, any habit cures habit, any erroneous behaviour can be corrected by therapeutic, educational or even punitive means, but it is also a known fact that resuming life in the old environment, in the place that one developed such behavioural constructs determines most often the resumption of old habits.

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