

The some Psychological Aspects of the Stress

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ABSTRACT

Abstract. Generally the term stress refers to experiences of endangering one's physical or psychological wellbeing. Physiological stress refers to bodily adaptation processes and the maintenance of body's balance. Selye defined stress as a function of elevated corticosteroid levels and used the term stress to refer to the effects of any agent that threatens the homeostasis of the organism. Thus, psychological stress can be defined as a discrepancy between personal capacities and environmental demands. Somatic stress symptoms are related to both physiological and psychological stress. The different types of stressors are likely to elicit divergent stress reactions. Rationale is as follows: temperament a) has a biological basis, b) is highly inherited, and c) explains what one experiences as a stress and partly determines what the health consequences are. On the basis of the results of scientific researches the strongest stress overtaking the man is the death of the partner in marriage if they lived together more than 15–20 years. Researches have cleared up the surprising, unexpected phenomenon that irreversible changes used to set in the personage if somebody occupies a leading post for a longer period. In the moment a person becomes a leader appears a distortion in its personality.

Keywords: *Stress, personality, biopsychological system, leader.*

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INTRODUCTION

Every living organism is a system. Every living system can be defined as a self-regulating system the essential characteristics of which are as follows: its elements possess life as an attribute; between its components there is a structural link; the different functional sub-groups are informal of each-others' behaviour by communication; the living system has a certain freedom of selection with respect to both the acting trends and the aims.

In this state, all physiological parameters characterizing the organism oscillate between a minimum and maximum value. The totality of the dynamic equilibria of the physiological parameters determines the sound condition of the organism. This homeostatic state is maintained by regulatory mechanisms [1].

It has been discovered in cybernetics that the regulatory mechanisms of the lifeless and living organisms is common and this was called the principle of feedback. In any case once an outgoing feature exert somehow an influence on the ingoing one we speak on feedback. This means that the centre get knowledge how its order has been performed by the executive body (has acted upon the order) then accordingly gives new instruction [2]. This has two possibilities: the so-called negative and positive feedback. In the case of negative feedback, if the value of the outgoing signal is higher it sets up the decrease of the functional action (of the device) if in turn it is lower it brings about the increase of the functional intensity [3]. In the case of positive feedback, if the value of the outgoing sign is higher or lower, resp. it entails further increase or decrease, resp. Because the task of the regulation is to keep the living system on the prescribed value despite outer disturbances, it's evident that very regulation is a negative feedback. We know three man regulatory mechanisms: the nervous, the hormonal and the umoral regulation.

Let's denote with $o(t)$ the exit output and the mean value of the characteristic parameter on the system is $o^*(t)$; after the adjustment, the values of the outputs obtained shall be denoted with [4]

$$o(t_1), o(t_2), o(t_3), \dots, o(t_n) = o^*(t);$$

$$\text{if } t_1 < t_2 < t_3 < \dots < t_n.$$

We talk about a negative inverse value, if the following two conditions are satisfied:

$$|o^*(t) - o(t_1)| > |o^*(t) - o(t_2)| > |o^*(t) - o(t_3)| > \dots > |o^*(t) - o(t_n)|$$

$$\frac{d|o(t_i) - o^*(t)|}{dt} \leq 0.$$

In living organisms, however, the phenomenon of positive feedback often occurs when an organ malfunctions. The positive reverse connection is the connection which introduces an amplification of the effect caused by the entry signals. Maintaining the denotations above, we speak about a reverse positive connection, if it fulfils the following two conditions:

$$|o^*(t) - o(t_1)| < |o^*(t) - o(t_2)| < |o^*(t) - o(t_3)| < \dots < |o^*(t) - o(t_n)|$$

$$\frac{d|o(t_i) - o^*(t)|}{dt} \geq 0.$$

Some Aspects of the Stress

Living systems are continuously befallen by stimuli from the outer and inner environment and if their intensity exceeds £ value or frequency normally acceptable by the organism then it results in the alteration of the oscillatory domain of one or more physiological parameters of the living organism. Consecutively a given parameter no longer can be kept by its own regulating mechanisms within the normal oscillatory domain. The continuance of such change for a long time entails also a changing process in the structure of the organism. Such status of the living organism is called stress state.

In 1936, Hans Selye published his article on stress in *Nature*, in which he discussed the close correlation between stress, and the endocrine and immune systems [5]. In his book entitled *Stress without Distress*, Selye states that he had been preoccupied with the adaptation of the living organism to stress for nearly four decades [6].

The stress is properly a general adaptational answer rised under the influence of some stressor, with characteristic but not specific changes. The organism can, in general, get along namely by switching on also another regulatory mechanism for the convenient control of the altered physiological parameter. All these surplus regulations need excess-energy from the side of the organism, contribute to wear it and for this very reason accelerate the process, of aging.

In the living organisms stress can be provoked on three levels: on biological, mental and psychical level. We speak of biological level if a physiological parameter gives an overdimensionated answer to the outer or inner stimulus; e.g. consume a rotten food, contact with an overheated object, effect of a very loud noise, inhalation of spoiled air etc [7]. We speak about mental stress in general during processes bound to learning, acquiring like memorizing, recall, proficiency in speech, be in an examination funk etc. Psychical stress can happen due to impressions related to the (human) personality: sorrow because of the death of a family member, break up the pair relationship, grave stander, uncertainly of existence etc. In man one hardly can rail off sharp limit between these three levels of the stress because the one can influence also the other (second, third) levels and so e.g. it is well known that the long-lasting psychical stress results in biological structural changes [8].

Every man is a constituent part of a social organ. It is for this very reason not surprising that with man the original reason of stress conditions is his social milieu minimum in 90%. On the basis of the results of scientific researches the strongest stress overtaking the man is the death of the partner in marriage if they lived together more than 15–20 years [9]. By means of pur biological endowments and in consequence of nowadays medical technics man could have lived 120–130 years but the stress conditions affecting us during our life shorten it by more decades. The secret of longer lifetime is to avoid stress conditions because it yields the accumulation an inner surplus energy and lessens the wear and tear of the organism originating from the normal physiological processes.

The biopsychological system

One of the characteristic features of human thinking is that it considers the world's familiar phenomena as natural, given. My goal here is to present the formation of this "view of life" in relation to the dynamics of its development, and to shed some light on its unique qualities. Today this is made possible by the interdisciplinary research, that in spite of their merely fifty years of history gave a definitive momentum for life sciences. The more the scientific methods within research of a certain topic, the more thorough the information given by these.

"Mens sana in corporis sano" – that is "a healthy mind in a healthy body" – refers to the inseparable unity of the biological and the psychic. Neither can exist without the other. No matter how elusive psychic events are, the organic substrate for this is provided by our individual biological structure. The unit is thus made up of two parts, operating separately, but mutually determining each other's functionality. An equilibrium system develops in which when a

function is disrupted it burdens the functioning of the organs associated with it which creates a dysfunction in the organ itself as well as in the body and they react to each other. For example, in the case of anorexia or bulimia, both of which have psychological causes and are somatic, the nerve center responsible for disrupted hunger and satiety generates organic damage [10].

In this, from a biophysical point of view, there are psychosomatic and somatopsychic, i.e. psychiatric disorders caused by organic dysfunction (the latter, for example, kidney diseases, brain tumors, gastric ulcers, etc. are accompanied by psychological changes) are formed. Emotional stress results in anxiety with vegetative accompanying phenomena (sweating, temperature changes, flushing-paleness, nausea, diarrhea, urinary urgency, etc.). If these vegetative phenomena are repeated, they can also result in organ damage. This is called psychosomatic specificity. Psychic emotion can also affect the effects of certain hormones, not just the functioning of certain organs. A significant proportion of psychosomatic disorders are reactions that persist in the normal state, and only become prolonged and increase in intensity. Repeated stimulus responses result in a qualitative jump from quantity after a period of time, which can lead to a greater or lesser degree of temporal or irreversible changes [11]. A state of an endless cycle is created in the closed system, which thus requires external intervention because the balancing role of homeostasis is disrupted. Based on all this, different groupings can be established: primary and secondary triggers or causes, a symptom of a neurotic or organic process that occurs or develops as a result of an endogenous or exogenous effect, the internal pathomechanism of which must be interfered with.

The highest level of expression of the operational polyvalence of the human psyche is considered to be creative activity. The distance between reality and model, aspiration and opportunity is an indicator that determines a person's actual level of self-realization.

Since these indicators define the whole of psychic organization, they can be used to assess the general level of development of a personality [12].

The level of organization, which expresses the correspondence of behavior to the nature and meaning of external influences, can be estimated by constructing a phase profile of the psychic system based on the main psychic indicators [13, 14].

This can be expressed in the form of the following relation:

$$S = \frac{\sum_{j=1}^m Y_j(t_k)}{\sum_{i=1}^n X_i(t_k)} ; k=1,2,\dots,p$$

where $\sum_{j=1}^m Y_j(t_k)$ is the sum of the mean of the adaptive responses and $\sum_{i=1}^n X_i(t_k)$ is the sum of the external effects and stresses, t_k ($k = 1, 2, \dots, p$) expresses the consecutive motions of the examined period. If the value of S is close to zero, then the personality is characterized by a great lack of psychic organization, i.e. psychic disorganization; if the value of S is close to 1, the individual is expected to respond correctly at all times, to show a state of psychological equilibrium, and to have minimal psychological fluctuations.

With the technical advances that have taken place in our environment over the last hundred years, our body's usual biological adaptation has not been able to keep up with evolution, and as a shield against the emotional problems that have arisen, it has hidden behind psychosomatic perturbations.

Personality developmental disorders can occur as a result of both internal (endogenous) and external (exogenous) influences, due to the disharmony of this co-operation, some personal characteristics become disproportionately predominant, others become irrelevant. If an individual's responses come from an external cause, mostly reversible processes appear. The triggering causal factors are correlated in time and intensity, i.e. they occur during abnormally strong and prolonged exposure and are usually in direct proportion to the strength of the effect and the severity of the symptom. As emotional order and cognitive tension decrease, the reaction slowly dissolves [15].

By examining the life disappears as we are approaching the lifeless components from the total life. That is, life doesn't equal with the sum of its constituents!

The better we disconnect these living units the farther we are gradually distancing ourselves from the biology, then arriving to the superb, eternal and universally physical laws of the lifeless material. The living material is a highly

organized complex structural system, able to maintain this composite structure through its metabolism. It is proper to ascribe the qualitative differences within the single internetics levels to the organization of the constituents. It is not possible to understand the totality through its particles, however, the knowledge of the parts would help us to understand the whole.

On the Distortion of Leaders' Personality

The most determinant feature of anybody's frame of mind is that we call altogether personality. In the course of the ontogenetic development, we inherit very few such marks which would determine the personality in adulthood. Based on scientific researches, we can establish that the most part of the personality components (about 90%) are determined by environmental effects whilst the inherited marks dominate in the biological constitution, in the structure of the nervous system, in numerous illnesses, in some deficiencies. On the inherited components settles the ample family milieu in newborn age and infancy, followed by the very strong influences in the nursery and the community circle after the attainment of reading and writing. Later it throws out deep roots in the personality the social medium through its direct and indirect information channels in which the person is living. With reached adolescence, the progression or regression of the developing personality structure will be given by a very narrow „circle of friends”, co-operative company of about the same age, or at least it becomes a determinant factor [16].

The constitution declares that the person completed the 18th year attains his majority which has to be interpreted in law that he can be called to account, held responsible for his decisions, statements, deeds but at the same time it has to be laid down as a fact that he doesn't possess the stage of spiritual knowledge which should be necessary and sufficient to adapt himself to the communal life. At this time he is faced with his community in very different situations plainly and hiddenly so that one can speak about reversing. Every personality researcher definitely states that the personality of the legally major 18 years old individual still shows plastic structural form which yields fluctuating functions. In this initial grown-up period, a meeting, a reading through a book, an experience, falling off a pair-companionship may have of cathartic significance with respect to the direction line of the further development of this personage. Its substance implies in the contradiction that the society declares him an equal, equivalent, independent person but those adult members of the community he belongs to don't regard him of the same rank, his decisions to be equivalent, he being not an independent person of any point of view [17].

The young people, even if unconsciously but under the outer straining circumstances, stays before multiple crossroads: continuation of studies, search for place of work, founding of a family, forming of own home and these all together determine the definite trend of the personality but from the list you can see that this is a decade long programme. For this very reason the crystallization of the personality, also by international measure, can be taken to the age of 26–28 years. Due to the long-lasting process including nearly 3 decades, the personality turns into such a rigid structure in every man on which the subsequent environmental effects are practically unfit to bring about qualitative change.

One part of the personality researches tries to discover those background events in consequence of which the well defined, crystallized personage of a given individual gets changed. Only in the latter decade there have successfully discovered such groups of phenomena which contribute to change the personality of the adult man.

In the average human lifespan, as a consequence of the sudden development of the 20th century special groups of diseases stepped forward on the gradation of ranks of causalities: cancerous tumours, cardiac infarct, traffic accidents etc. The person who permanently suffered of severely road accident, got over an infarct, cerebral hemorrhage (had got a stroke), a malignant tumour had been diagnosed, he had to live over the panic of mortal flight and hence there appeared distortions in his personage. Nowadays, because of renal dialysis the number of machine-dependent people may be put worldwide some tens of thousands of whom their entourage renders account of significant personality change. The examples above can be well explained by such irreversible changes in the person's biological system which impede to maintain his previous conduct of living and as a consequence he relates in a different manner to the environment.

Researches have cleared up the surprising, unexpected phenomenon that irreversible changes used to set in the personage if somebody occupies a leading post for a longer period. Once a person becomes a leader, independently of its way, his personage – until believed to be very firm – turns in „an instant”, in a couple of shakes. It can only happen that the person unexpectedly possesses such a feature which he didn't dispose of up to that time. This new feature is the power (arbitrary measure, violence, domination). Power means that it invests the leader with a licence which renders it possible to make incompetent decisions without responsibility (and competence) moreover he is capable to press his decisions upon other fellow-men with the help of the entourage (surrounding structure). The possession of power is the gravest „psychically infectious disease” because whoever infected that cannot be cured [18]. In the moment a person becomes a leader his tone, the accent, mimics gets changing towards co-workers, friends, acquaintance, relatives, because the idea of such a superior person bursts into his personage that as from this moment he is convinced being better at everything than his subordinates: derived from the leading position the spiritual workshops of the arguing discussions get lost, the hearing of others' opinion becomes invalid; the leader usually doesn't take part in the practical work, in this way he has no information about the activity concretely performed by the community under his leadership.

Leaders usually have their full set of means to exploit the subordinates and taking advantage of the situation to share in the praise, material allotment of the society with conferred distinction upon him. If in these days all over the world we inspect the list of the honoured, 99% of it derives from the leaders (mostly) undeserved, because the reward for the results of the subordinates has been delivered over the leader without their own accomplishment. One of the deepest social contradiction evolves between the person (leader) and the community (worker) because every decision of the leader submitted to his own individual interests, doesn't serve the community, for this reason these leaders become the main obstacle of the communal and social development. This is true to such an extent that a country can provoke a (primary) war sending its people to death in 10 million's order scale acting on behalf of its leaders' own interest.

It is a fundamental problem in the case of the leader of any rank whatsoever that the controlling role of the community is not working as a contradiction to the sphere of action of the leader's function. As a direct consequence of which has been said above, the person in leading position „got tippy from practising the power” and tries to remain in position to keep the leading possession by means of any kind: slander, murder, corruption [19].

If a given person – of very different reasons – may get out of the leading function, it is a stupefying scientific statement that a further disturbance in his personality comes about. He cannot accept being no more a leader, he is unable to adapt himself to the different communities and destroys the public feeling by his negativistic, malicious conduct. Sorry to say that neither in the near past nor in the present days we have not found any contradictory example for the leader's attitude.

To get a leading position may result in regressive distortion of the personality which results in irreversible alterations in the personality structure and the person will be unable to change it during his further life.

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