

ONTOGENETIC AND PSYCHOGENETIC INSIGHT INTO THE TRADITIONAL CHAKRAS DOCTRINE

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Abstract. As it should be expected, the doctrinal theories of traditional medicine obviously belong to the domain of metascience (metaphysics). It means that they are based on revealed truths, which are necessarily expressed by an symbolic and metaphoric language. On the other hand, scientific theories are based on perceived truths, which are expressed by the language, which necessarily excludes the metaphors and symbols. Therefore, symbolic statements, as well as revealed truth, *per definitionem* cannot be expressed in a rational way, i.e. metascientific content can not be fully expressed in a scientific manner. The aim of this paper is not to translate the traditional (metaphysical) Chakras doctrine into the language of science, but to point out that in that teaching exist the contents which can be scientific interpreted. Namely, Chakras teaching, could survive for so long, only because the practice findings supports it. The traditional medicine practice can not be always explained in a scientific way, but it can not be completely ignored, if they have survived for centuries and millennia, as it is case with Chakras teaching. Specifically, as it will be pointed in this paper, the scientific knowledge about the human ontogenesis and psychogenesis, can be unambiguously associated with the empirically established findings, which are implicitly included in the Chakras teaching. In addition, based on this correspondence, it is possible to come up to the concept of a psychogenetic explanation of (so called) opening and balancing of chakras. Finally, there are serious indications that the process of opening the chakras can be closely linked to psychiatric regression analysis.

Keywords: *ontogenesis, psychogenesis, chakra, metascientific, scientific, doctrine, symbolic language, revealed truth, gnosis*

1. Introduction

Probably nobody today doubts that is overcome the dualistic mind - body concept of the western science, which was initially formulated by R. Descartes, who established that mind and the body are distinct, what means that the mind does not affects the body states, as well as the mind does not feels the changes of the body states. The long term influence of this dualistic concept contributed to the development of the biomedical model in the western medicine, which highlighted the role of the physical body and practically excluded the role of the mind. This model is based on the assumption that the human anatomical structures and physiological processes are the basis for addressing health issues, while the role of the mind has been limited to its influence on mental states. It was ignored that the psychological or mental processes of the mind can influence the biological structures and processes of the body and thus to contribute to body health.

The idea that the body and the mind both contribute to the physical and mental health was fostered by the penetration of the eastern traditional medicine. Today are dominant the interrelated mind->body (psychosomatic) and body->mind (somatopsychic) concepts, typical for the eastern philosophy and traditional medicine, that assert that the body and the mind are dynamically interrelated. These concepts, which can be named as mind<->body models (mind to body as well as body to mind) emphasize the influence of the mind and mental processes on physical health, as well as the influence of the body states on the mind and mental processes.

There are a numerous scientifically confirmed evidences that the mind and body operate as two interrelated parts of a whole; the mind state affects the body health, and the body structures and processes affect the anatomy of brain regions. The damage of the physical processes and structures of the body alters the expressions of the mind and mental life. Likewise, psychological trauma alters the physical processes and structures of the body. For example, the standing examples of the mind influence on the body include the existence of somatic illnesses that occur in the absence of disease pathology or physical damage. The placebo effect is an example of the link between the mind and the body. In some cases the effect of the placebo is

equal to the effect of the active treatment (Stanovich, 2010). It is known that the psychological and social factors not only influence the structure and function of the nervous system but also physical health and disease processes. It is confirmed also that the anatomical structures and physiological functions of the nervous system can predispose individuals to mental disorders (depression, anxiety).

However, it is noticeable that in all of the above mentioned models (mind-body, body->mind) the human being is seen as a fully formed individual, i.e. with fully formed morphological and physiological characteristics. In this way it is ignored the specific role of the body->mind interaction during the psychogenesis and ontogenesis. This problem is interesting for some kind of asymmetry of this interaction, since morphogenesis precedes the psychogenesis, because we are born physically formed, but not mentally. This means that in the early stages of adolescence can be expected pronounced morphogenetic influences on the characteristics of mental development, but cannot be expected that the undeveloped mental characteristics have a similar effect on the morphogenetic properties. This asymmetry is fully manifested in the early development phase, including the puberty, during which the child meets, investigates his own body and its functions.

This paper is a specific scientific analysis of doctrinal teachings of the Hindu chakras, which is part of a well-known and widespread Yoga. The aim of this analysis is to identify the elements that provides an opportunity for reinterpretation of these teaching on a scientifically acceptable manner. As it is known, there are numerous researches demonstrating that Yoga practices can modify many physiological systems, including respiratory, cardiovascular, and autonomic and central nervous system. Chakras, which are defined as non-physical energy control centres, is attributed to be the initiator and controller of all these changes, which, otherwise, are the result of controlled balancing and regulation of the non-physical energy (prana, chi) absorbed from the environment.

There is no any, even partly, scientifically acceptable explanation of how the non-physical chakras physically change the states of the physical somatic structure. After all, it is irrelevant for this work because the non-physical entities, as well as everything else about them what can be found in any metaphysical doctrine, cannot be the subject of scientific attention. This only express our position that one should not investigate the chakras themselves, but what is attributed them to work and which leads to physiological changes. In other words, we believe that attention should be directed on the therapeutic procedures of Yoga healing therapy, rather than on the doctrinal descriptions of their mechanisms of action.

2. Chakras Themselves

The chakra system is a part of Vedic Yoga teaching, which is described as a system of seven energy centres of the body that make up the human energy field and integrates body, mind, emotions and spirit. The Yoga practices (asanas) stimulates the energy centres (chakras) to vitalize the body by absorbing primary energy from the universe and sending it along subtle energy channels (nadis) to the different areas of the body. The human maturation passes through seven stages, controlled and governed by the corresponding seven chakras, where each stage corresponds to a more refined understanding of personal and spiritual power (Myss, 1996).

Here are the most frequently mentioned characteristics of the chakras, which shows that they attributed to the dominant role of the controller of the human mental and physical development and regulation of all psychological and physical functions:

- The chakras are understood to be non-physical vortexes of subtle non-physical energy (vortices of etheric matter) that spin counter-clockwise, exerting non-physical control over the physical body.
- The chakras are vertically aligned, running from the base of the spine to the crown of the head, suggesting that we ascend toward the Divine by gradually mastering the seductive pull of the physical world (Myss, 1996).
- Each of the seven major chakras connects one's energy to the major nerve plexuses on the spinal column, the glands in the endocrine system, and the specific systems of the If a chakra is blocked it will eventually manifest on the physical dimension in the form of an illness body (Brennan, 1987; Myss, 1996).
- Chakras contain the mental programming that governs our behaviour. Each chakra functions similar to a floppy disk that holds the core programs that determine all of our decisions (Judith, 1996; Judith 1999).

- In the mind, chakras are patterns of consciousness - belief systems through which we experience and create our personal (Judith, 1999).
- Chakra programs contain information about the body in terms of survival, sexuality, and action. The higher chakras bring us to more universal states of consciousness and work with our deeper belief systems about spirituality and meaning (Judith. 1999).
- The chakra system functions as a map of one's evolutionary challenges (Ballentine, 1999). Each chakra contains a spiritual life-lesson that we must master in our evolution towards higher consciousness. In brief, the first chakra resonates with the life-lesson of survival; the second with sexuality and creativity; the third with personal power, assertiveness, and self-esteem; the fourth with love and forgiveness; the fifth with expression and will; the sixth with intuition, wisdom, and beliefs; and the seventh with transcendence and presence (Myss, 1996; Eden, 1998).

Although Yoga practices lead to clear physiological effects, there is no explanation of how non-physical chakras influence physiological function. Even more there is no valid scientific study that proves that the chakras, or anything like that, really exist. Further, there is no scientific proof that something non-physical could interact with the physical. If chakras exist and govern and control the physiological activity, some aspect must be accessible to objective analysis. Therefore, the attention should be directed on the therapeutic procedures of Yoga healing therapy, rather than on the doctrinal or pseudo-scientific descriptions of their mechanisms of action, which is completely based on the non-physical chakras. The non-physical entities cannot be the subject of scientific attention.

3. Chakras and Science

At the beginning of this chapter we want to point out that the relatively large number of theoretical papers devoted to the nature and functioning of the chakras and yoga practices, completely unfairly are attributed as scientific, even though they are not. In fact, they are pseudo-scientific hypothesis that on the basis of the chakras as unrealistic and non-physical entities, offer an explanation of the actual physiological processes in the human body. As an illustration of this assertion can serve the following most frequent pseudo-scientific statement (Raghuwanshi, 2011): „*Yoga practicing stimulates work of endocrine system which is directly connected with activity of the energy centers (chakras) and energy pathways (channels – nadis)*“. It is confirmed that Yoga practicing stimulates work of endocrine system, but there is no any evidence that chakras and nadis exist.

Concerning the so called science of alternative medicine, we are, in fact, faced with numerous indiscriminately attempts to translate the methascientific teachings to the language of science. It is nothing more but an arbitrary reinterpretation of the scientific knowledge (truths), to which is attributed the desired methascientific context. Therefore, we believe that any analysis of traditional medical systems, both Eastern and Western, must be limited to the empirically established facts. For example, it is out of sense the perception of 5 energies (earth, water, fire, wood, air) as a subtle non-physical energies, because, in fact, they have a symbolic meaning as the metaphorical guidelines of the particular psycho-physical states. The situation is similar with the chakras, which are doctrinaire defined as the existing non-physical entities, which are, in fact, the essence of the metaphysical explication of unknown changes, achieved by the yoga practice. There is no any scientific evidence that chakras exist, although if they really exist and can influence physiological activity, must be something of them accessible to objective analysis.

There is no way to interpret scientifically the parts doctrinal teaching, which operates with non-physical entities. All doctrinal theories of traditional medicine, including all chakra teachings, obviously belong to the domain of metascience (metaphysics). It means that they are based on revealed truths, which are necessarily expressed by an symbolic and metaphoric language. On the other hand, scientific theories are based on perceived truths, which are expressed by the language, which necessarily excludes the metaphors and symbols. The symbolic statements, as well as revealed truth, *per definitionem* can not be expressed in a rational way, ie. metascientific content can not be fully expressed in a scientific manner. Therefore, the traditional chakras same is with traditional teaching about chakras, which is, in fact, teachings should be considered as the attempts to capture a number of empirical experiences, which has been confirmed in a traditional medical practice, in a doctrine that is in harmony with traditional philosophical and religious teachings.

There are a few scientific hypotheses, which concern the mechanism of changes that yoga practice brings. However, besides the numerous researches demonstrating that yoga practices can modify physiological systems, there are no scientifically acceptable description and explanation of these body to mind and mind to body (mind \leftrightarrow body) interactions. It is worth to mention the hypothesis that proposes that chakras are associated with embryological organizing centres in the central nervous system (Shang, 2001), possessing high concentration of gap junction connections. It was supposed that these intercellular gap junction connections provide a physiological mechanism underlying subtle energy systems described in yoga. Namely, it is assumed that the electrical conductance associated with a high concentration of gap junctions generate phenomena that, when subjectively experienced, have the qualities attributed to chakras (Maxwell, 2009). On other side, there is hypothesis of how body states can have influence over brain states affecting thought and feeling (Damasio et al, 1996). This chakra hypothesis emphasizes the role of networks of chemical synapses in favour of electrical networks. Finally, there is hypothesis which is based on the assumption that the physical location of the chakras can be viewed from an ontogenetic perspective. The lower five chakras are associated with sites of developmental control over the following five regions of the spine: cervical, thoracic, lumbar, sacral, and coccygeal. The upper two chakras are located within the brain at points where brain regions have differentiated (Maxwell, 2009; Rubenstein et al, 1998).

4. Ontogenetic and Psychogenetic Insight into Chakras Doctrine

Considerations in the previous sections could be understood as a critique of existing theories (hypotheses) about the chakras and the effects of yoga practices, but not as a denial of the entire teaching of chakras and yoga. In a few places we pointed out that the everyday practice conclusively confirms its importance as a unique empirically confirmed traditional medical system, which is based on the previously mentioned mind \leftrightarrow body approach. As for the existence of chakras, our posture is that one should not engage in non-physical entities, that do not have to think whether they exist, but whether something is going on if the therapeutic treatment places where it is claimed that they are located. More precisely, the chakra locations should not be seen as a place where are hidden these non-physical entities, because a non-physical entity can not be on a physical place, but as places in which some treatment may exhibit effects attributed to the chakras. This approach shifts the focus from theoretical investigations, which have resulted in a number of pseudo-arbitrary variations of the traditional chakra teachings, to the empirical researches of therapy treatments and yoga asanas (practices), to which is devoted much less attention. Following this approach, that means taking into account the phenomenological aspects of the chakras doctrine only, we tried to get answers to the following questions:

- Whether the doctrinal claim that chakras are located along the spine is based on some empirical facts, ie, whether on the part of the spine, on which it is assumed that is chakra X, there is something what connects that part with the organs, which are associated to that chakra?
- Does the therapeutic treatment of the spine part, where is presumably located chakra X, can lead to physiological changes in organs, which are associated to that chakra?

Formally, the answer on the first question might be yes. As it is shown in Figure 1, from the parts of the spine where are located the first five chakras start neurons which innervate the somatic structures that are associated with the corresponding chakras. More specifically, in the vicinity of these parts are five ganglia from which exit and enter in the interneurons and neurons that innervate associated organs. However, this does not mean that chakras are there really located, or that in these parts of the spine is something what is unknown for modern neurology. These are parts of our body that are fully examined anatomically and physiologically, so it is irrational any notion that there could be some non-physical entities (chakras), which can radically affect the innervation structure and the physiological processes of the associated organs.

The answer on the second question is yes again, but for the first five chakras also. Namely, one can easily check that each energy therapy, applied to the spine part where is presumably located some of the first five chakras, manifest effects on organs that are associated with that chakra. For example, if we act on the part of the spine on which is presumably located the first chakra, arise the filling of the energy flow in the lower abdomen and legs. Of course, this is not the action on the spine itself, but on the segment of skin that is above it, so it is, in fact, a TC (trans cutaneous) energy stimulation: electric, masage and thermal TC stimulation, as well as touch healing, distant healing, and auto distant healing. The last one, usually applied in self relaxation techniques, is a mental concentration on a selected part of the spine.

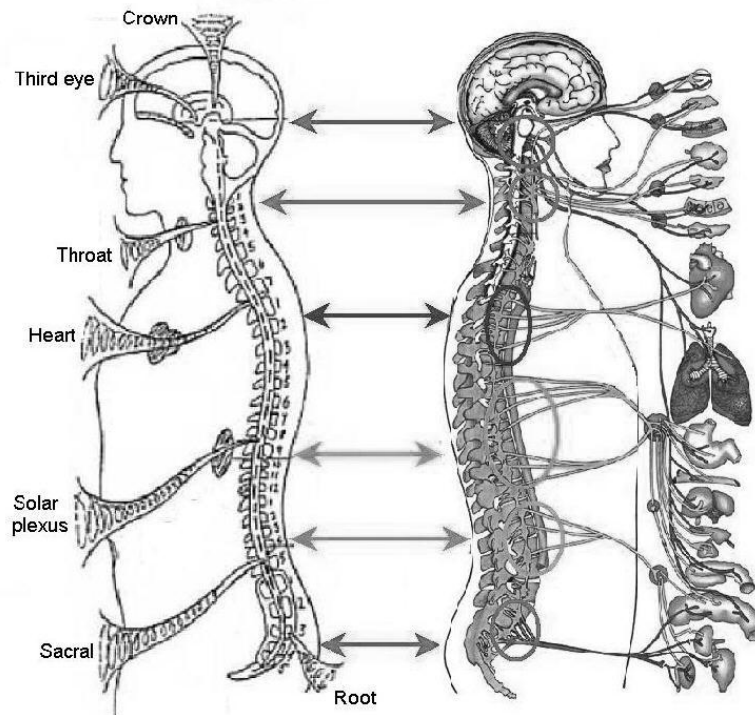


Figure 1.

These, and some other similar empirical data directed us to the conclusion that the chakras are the essence of the metaphysical explication of unknown changes, achieved by the yoga practice, which has a symbolic meaning as the metaphorical guidelines to the genesis of the particular psycho-physical states. A similar view was expressed by John Nelson who said this about the chakras (Nelson, Ref. 7): *"I found them (chakras) to be an ideal metaphor to characterize the way we expand our consciousness as we progress through life."* Simplistically speaking, this aims to point out the fact that the doctrinal descriptions of the chakras can not be indiscriminately linked to the autonomic and central nervous system or to the endocrine glands, because they are formulated at a time when none of them was not known. Instead that, attention should be focused on those skills, or those phenomena, which were known to the creators of these doctrines, because the base of the doctrines are not theories but phenomena.

The answers on the above two questions diverted our attention from chakras themselves to the therapeutic effects, i.e. to the phenomenological background of the doctrinal description of chakras therapy. In this regard, one can set the following questions:

- Does any therapeutic treatment (yoga asanas, meditation, TC stimulation, healing) of the spine part, where is presumably located chakra X, can lead to changes of the psychological (mind) states, which controll are associated to that chakra?

Our experience and collected data indicate a partial affirmative answer. Therapeutic treatment itself can conclusively point to the existence of energy blockages in the organs that are associated to the chakras, can reduce or even remove these blockages, but there are no visible indications that it changes the mental state. However, guided meditation, followed by associations that have been partially induced by the color associated to the given chakra, gives unexpectedly different results. This approach leads to psychological responses that are similar to those that occur in the regression analysis, when the patient is confronted with suppressed psychological blockages. Namely, guided meditation, properly adapted to the corresponding chakra (ambient, color and text), have provided informations about possible suppressed psychological blockages in the phases of the ontological and psychological development of the patient, which are presumably controlled by these chakras (posnatal, childhood from age 2, puberty, adolescence and adulthood respectively).

Previously mentioned indicates that the chakras teaching, in fact, metaphorically explicit empirical knowledge about the human ontogenesis and psychogenesis. Strictly speaking, it is explicated in an universal way, i.e. without any access to psychological types, and therefore leads us to think that it refers to phylogeneses. Namely, it confirms the view that every man, if long enough and persistent enough applies

yoga exercises, can fully balance all the chakras, what means that everyone can achieve results that correspond to the perfect human phylogenetic development, which is imolically identified with the ontogenetic and psychogenetic development. Nowever, although it is true that the phylogenetic and ontogenetic development of man are inseparable, but it is also true that the ontogenesis can not be identified with phylogenesis.

The assertion that the chakra teaching promotes a phylogenetic approach is supported by the fact that the chakras should be balanced successively, starting from the first one, where $n + 1$ chakra balancing starts, only if the n -th chakra is balanced. This implis that each chakra can be always balanced, regardless of supressed psychological stresses and blockages, what means that is allways possible to repeat and to correct all phases of the phylogenetic (as well as ontogenetic and psychogenetic) development.

5. Conclusions

There is no scientifically acceptable evidences that the chakras really exist, that is, formally speaking, in accordance with the doctrinal assertion that they are nonphysical entities. Because each doctrine is a metaphysical (unscientific) explication of the traditional empirical experience of the effects of yoga practices (asanas), we can conclude that the chakras are only metaphorically designated developmental stages of the human ontogenetic and psychogenetic development. This also indicates that the chakras teaching is explicited in an universal way, i.e. without any access to psychological types, and therefore leads us to think that it reffers to phylogenesis.

Although the therapeutic treatment of the spine part, where is presumably located chakras, can lead to physiological and psychological changes in organs and mind states, which are associated to them, it does not mean that chakras are there really located. These are parts of our body that are fully examined anatomically and physiologically, so it is irrational any notion that there could be some non-physical entities (chakras).

Our opinion is that the metaphysical doctrinal chakra teaching explicitis rich and valuable empirical experience, which illustrates a holistic approach to psychiatry, which considers the interrelated influences of the mind to body and of the body to mind in the ontogenesis and psychogenesis. In this approach there is nothing that is unknown for science (psychiatry), and therefore it could be scientifically acceptable, but it is necessary to reinterpret it using the language of the modern science. However, it can not be done, if one still insists on the chakras. The metaphors are untranslatable into the language of science, but science can identify scientific content which is metaphorically presented, or hidden.

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