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The Physiological Effects of Mental Activity and Psychological State on the Unity of Form and Spirit with Human Energy with the Example of Chinese and Western Medicine

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Abstract

All the activated regions (pixels/voxels of the tomograms) are areas that are blocked by the brain as they disrupt the analysis of social categories, and in fact the areas associated with these analyzes consume less. energy so methods cannot detect them (due to space-time thresholds). The use of fMRI and PET raises significant concerns about physiological, technical and (most importantly) methodological challenges; examining them will be particularly useful in the design of research (including meta-analysis) in social neuroscience (for review): Logothesis , 2008; Figley, Stroman, 2011). One of our early pioneering efforts in the development of new medical specialties is known

as integrated Chinese and Western medicine. The basic research concepts and methodologies, as well as the clinical treatment of thoughts and patterns, are not only different from traditional Chinese medicine but also from current Western medicine. (“Relevance between Psychology - Physiology - Pathology Viewed from ...”) Both can learn from each other and complement each other, which will ultimately result in the mutual advancement of Chinese medicine and Western medicine. China's initial benefits in developing the new drug came from the joint development of the target. The relationship between Western medicine and traditional Chinese medicine has been tried to be investigated in terms of psychological, physiological and pathological factors. The concept as a whole derives from the "unity of form and spirit", which derives its importance primarily from the importance of the mental activity and psychological state of man, psychological factors and social, natural environment and biological characteristics, physiological and pathological changes of psychological activity. Last but not least , the result from Ede Wen. Guterry's thesis that "restrictions are the theory of learning" can be expressed as follows: It is necessary to put the so-called psychological activity on the physiological reality of the integration of physiological and psychological things, subjective and things and objective things. I think this is the most important challenge facing the scientific community today. The body as a whole, general medical research using systems integration, information transfer, self-regulation, functional testing, and other methods, and analysis of the body as a whole are brought together here. It is thought that by doing both theoretical and practical work, the importance of "psychological, physiological and pathological" can be raised to a whole new level.

Keywords: *Chinese and Western Medicine, Mental Activity, Psychological State, Human Energy, Form and Spirit Unity, Physiological Effects*

1. Introduction

leptin to reverse obesity in leptin -deficient ob / ob mice and induce weakness in wild-type mice, the function of the leptin pathway as an antiobesity axis may not be readily understood. This is

because leptin can cause weakness in wild-type mice. Indeed, substantial evidence suggests that satiated baseline leptin levels act as a sign of adequate energy (reviewed in Ahima and Flier 2000).

food intake is restricted, leptin signaling is turned off relatively quickly, much faster than the rate at which fat reserves decline (Ahima et al. 1996). A decreased level of leptin causes a complex nervous response characteristic of hunger. This response includes various neuroendocrine responses that promote hunger and foraging behavior, an efficient metabolism (convincingly demonstrated in rodents), and survival during periods of limited energy. These responses include reproduction, linear growth, and suppression of thyroid hormone levels (Ahima et al. 1996). Reactivation of the energy source instantly raises leptin levels and inhibits this starvation program. Both mice and humans are more likely to be obese when the leptin signal is lacking despite adequate calories . This is because the absence of the signal creates the subjective experience of being hungry even when there is plenty of food. In addition to the functions, it performs through the central nervous system circuits, leptin appears to exert a variety of effects directly on peripheral tissues through the signaling of leptin receptors.

A key effect may be the prevention of triglyceride accumulation that leads to insulin resistance in non-adipose tissues such as muscle and liver (Lee et al. 2000). (Lee et al. 2000). In addition, leptin it has been shown to have strong effects on the cardiovascular system, the immunological system and even the cycle of bone tissue (Ducy et al. 2000). While it is clear that leptin functions as a transition from hunger to satiety, the hormone's efficacy in combating obesity is limited. The prevalence of obesity despite high circulating leptin levels is evidence that increased leptin levels have a limited capacity to control food intake and prevent obesity as fat mass grows (Considine et al. 1996). Therefore, leptin its antiobesity activity may have been restricted as a result of evolutionary pressure that promotes fat deposition during times of abundance.

2. Chinese Medical Practice

Science and humanities play a role in traditional Chinese medical practice. In this theory, man is considered not only as a natural person, but also as a social figure. It also explores disease as it

relates to life and the social and social environment, in the context of the interaction between life, health, and disease. "The spirit of God's unity" is his whole concept of life, one of the most important theoretical foundations of Chinese medicine psychology. Over the millennia, ideas about the mind have always arisen with the causes of Chinese medicine, pathogenesis, diagnosis, treatment, and other aspects of health and wellness. And guide the clinical practice of Chinese medicine by showing that the subject of the psychology of Chinese medicine has been and continues to be a core component of traditional Chinese medicine for a very long time. In particular, in the medical model evolving from a single biological paradigm to the more comprehensive "space-time-social-psychological-biomedical model" of Chinese medicine, this article mostly draws on traditional Chinese medicine and western medicine to examine the "psychological-physiological-pathological" link.

Therefore, it also directly affects the physiological function of people, and consequently affects the ups and downs of the body. Mental activity and state of people are important connotations of the god of the human body.

As a community, we are trying to better understand the factors that are crucial in determining the reproducibility of data, and one way to do this is to ask scientists to be more careful when designing studies and to be more specific when reporting techniques. Here we present the argument for the role of psychological measures as factors that are fundamentally overlooked in animal and human physiology research . Specifically, we argue that these metrics should be taken into account when designing research on both species.

3. That Psychology Is An Element of Integrative Physiology

Considering the organism as a whole, it is important to recognize that psychology is an element of integrative physiology and is a measurable variable, and, in our claims, a fundamental component of what is known as "basic health" in both animals and humans. We present animal and human data to support the hypothesis that changes in psychological measures and stress can significantly affect physiological outcomes in various body systems and conditions. These findings are

supported by the fact that we have published this data in this article. Because physiologists often have only a superficial understanding of the psychology literature , many fail to realize that the daily care and activities of laboratory animals can cause varying degrees of mental and psychological stress on animals. Social hierarchy within group housing, number of animals housed in each cage, frequency of cleaning of cages, handling of animals, exposure to noise, differences in animal investigators, restraint or immobilization or registration for a procedure , temperature in the animal facility and laboratory, and other daily activities, all in psychology literature are models for acute mental stress. When some of these stress models are experimentally stimulated, they provide valuable information about the effect of mental stress on various physiological systems. ("The Mind Matters: Psychology as an Overlooked Variable Within ...")

For example, restraint stress causes an increase in sympathetic nerve activity as well as plasma catecholamines, and dirty lattice switching leads to an increase in activity in key brain regions associated with autonomic output. Unfortunately, these acute stressors may arise during normal animal care, although they are not intended to be part of the experimental approach; as a result, they become confusing and are another plausible explanation for the lack of reproducibility in the data. Pryce et al . pointed out that the unpredictable nature of animal care can cause mental stress, which may also have repercussions in adulthood. To be more specific , the way female rats care for their offspring varies greatly from species to species and from one lab to the next. Contact between humans and mice can have a significant effect on this variance. Early life stress from maternal separation and differences in care (for example, early human care vs. inability to handle) can have profound effects on hypothalamic-pituitary-adrenocortical (HPA) reactivity.

4. Stress Responses

For example, early human use appears to blunt basal hypothalamic corticotropin- releasing factor mRNA levels, adrenocorticotropic hormone (ACTH) stress responses in the early postnatal days and during weaning and attenuate the overall stress response to ACTH and glucocorticoids in adulthood. This is because early human treatment exposes infants to a wider variety of stressors

than they would be exposed to in the absence of early human treatment . The fact that early-care pups receive more maternal care compared to non-care-giving pups is a factor suggested as a potential mediator for these apparent "resilience" adaptations. These findings highlight the importance of standardizing postnatal conditions to avoid the unexpected long-term effects of early life stress and to ensure that data collected in adult animals is tightly controlled for differences in hormonal and stress response. Additionally, these findings highlight the importance of ensuring that data collected from adult animals is checked for differences in hormonal and stress responsiveness. In addition, although the practice of using students and trainees to purchase and transport animals from a company and/or animal care offers economic options during a period of monetary constraint, postnatal and prenatal heterogeneity is still possible. This is because postnatal and pre-experimental care can have a significant impact on the health of the animal after it is born. There has been controversy in favor of using a holistic approach in which man and woman are viewed as biopsychosocial organisms.

When it comes to the study of people, it can be divided into five different categories:

Physical, chemical, biological, psychological and social categories

Additionally, there is a subfield of physiology called psychophysiology devoted to the study of mind-body interactions. However, much of the research conducted in basic and clinical physiology has focused on the chemical and biological aspects of the subject, and researchers rarely consider the influence of psychology as a factor in their research. An objective analysis of the "baseline state" is often included as part of well-controlled high-quality human physiological studies . is done. In addition, it is usual practice to keep a record of information such as physical activity levels, smoking status, dietary habits, regular sleep patterns and/or menstrual cycle stage or postmenopausal status (if female). It is an accepted fact that each of these can have an impact on the results of physiological examinations; therefore, they are used as screening methods to reduce the amount of variability. On the other hand, it is significantly less widespread practice to equally objectively evaluate psychological "baseline" and personality traits. This means that for a longitudinal study spanning six to twelve months, we can confirm no significant changes in

physical activity, nutrition, sleep and other important variables; however, we often lack insight into possible changes in anxiety, depression, anger, empathy , and other levels of mental state.

5. Central Neural Circuits That Control Energy Balance

leptin and other inputs expanded at a dizzying pace. A complex and comprehensive central circuit is defined for the regulation of energy balance. This was carried out by positional cloning of rodent genes , targeted gene deletion, identification of mutant genes in human obesity, and follow-up studies using functional neuroanatomy techniques. The leptin- regulated central melanocortin circuit is a simple description of the best-characterized and most clinically relevant circuit in the brain. Although several regions of the brain express leptin receptors and respond to this hormone and various neuropeptides with changes in energy intake and expenditure, this circuit is best described as the leptin -regulated central melanocortin circuit.

What this means is that we cannot be sure that there is no significant shift in the levels of any of these mental states. Studies in the laboratory have shown that changes in a person's mood can cause significant differences in human HPA, autonomic and cardiovascular responses. Also, changes in a person's social makeup or hierarchy (such as getting a new job or climbing the social ladder) can have a significant impact on a person's cardiovascular health. Is the lack of focus due to physiologists' ignorance of how these elements might affect their findings, or is it due to time constraints and/or a lack of awareness of which psychological assessments are most proper and reliable? In any event, we strongly recommend the use of objective assessment of psychological measures as part of the routine research recruitment and screening procedure . Because we believe that such an evaluation will yield more correct results. Do you see where we're going from here?

In animal studies, we believe it is necessary to check for any changes in the environment and exposure to potential stressors surrounding the data collection process. We also encourage telemetric monitoring of heart rate and blood pressure to check the body's response to stress and its ability to recover from stress. In addition, it is vital to set up guidelines for stress prevention in the time period immediately prior to data collection or animal sacrifice to ensure that the stress of

animal travel does not affect research results. In human studies, researchers need to include objective psychological assessments that offer insight into mental states (anxiety, depression, etc.) and also need to take into account the possible impact of changes in mental state when performing longitudinal studies.

6. A New Meticulousness And Approaches To Assess Your Health

The RDoC aims to supply new rigor and approaches to assessing mental health, and we encourage physiologists to pursue this ongoing initiative as it may be the future of how we objectively evaluate psychological health in both humans and animals. It is clear that mental health exists on a complex spectrum, and the RDoC aims to provide new rigor and approaches to assessing mental health. A call to physiologists to pay attention to the role of state of mind, social and environmental stress, personality, and other psychological measures as measurable experimental variables that can affect data outcomes and the reproducibility of studies in both animals and humans, given the compelling evidence outlined above, this editorial It is a call for physiologists to pay attention to the role of mood. There is a clear need for better monitoring and reporting of objective psychological measures in experiments involving both animals and humans. Doing so will address some of the complex interplay of variables that occurs in physiological studies that have an impact on the variability and reproducibility of data from and between individuals.

7. psychophysiology

A term that fits into this category is "social psychophysiology" . It was developed within the framework of the post-classical approach at the intersection of neuroscience and psychology. This study is devoted to the analytical examination of the methods, achievements and prospects of contemporary social neuroscience and social psychophysiology, which specifically examines brain structures related to the practice of social behavior patterns and intercultural communication. Specifically, this study focuses on: Physiological studies of brain activity during social interaction

processes are analyzed and the physiological approach to the study of brain mechanisms associated with social perception, social cognition and social behavior is used. ("(PDF) Cultural neuroscience and the category of race: the case of the ...") These processes are simulated using virtual reality environments. In addition to the analysis of psychophysiological studies of the mechanisms of social perception and social cognition, we discuss the main data on the "Brain Reading" and "Story of the Mind" theories, as well as the " Gnostic neurons' recognition and recognition of persons". emotional facial expressions", "mirror neurons", "emotional resonance " and "cognitive resonance". The topic of "cultural neuroscience", which refers to the study of the connection between the brain and culture, is given great importance throughout this article. The following issues are raised about this connection:

Physiological mechanisms that maintain "individual distance" in communication between members of a personified community; psychophysiological approaches to the study of cultural differences; physiological mechanisms of social classification (especially the formation of attitudes towards representatives of various social groups and the content of socially oriented information); and psychophysiological approaches to the study of cross-cultural differences (racial perception, stereotypes and prejudices).

Sechenov 's logic, the development is both historical and contemporary. LS Vygotsky, along with others, offered a contrasting perspective; This way of thinking was revolutionary. Vygotsky gave a concise account of cultural, psychological, and physiological phenomena in his diaries of the 1920s and 1930s. His analyzes ranged from physiological psychology to psychological physiology. This study of the interplay between cultural, psychological, and physiological reality can be represented in various forms in the work of NE Vvedensky , AA Ukhtomsky and NA Bernshtein , EN Sokolov , PK Anohin , AR Luria , and IM Feigenberg , among others. The following concepts are examples of non-classical and non-classical paradigms used in the method of the XXI century :

The problem of forming the body was solved by NA Bernstein, the neuronal stimulus model was developed by EN Sokolov , the concepts of the functional system were developed by PK Anohin , the systematic localization of mental functions was developed by AR Luria , and the probabilistic

prediction of brain activity was developed by IM Feigenberg . parabiosis NE was developed by Vvedensky , functional organ and dominant developed by A.

This article tries to define the subject area of psychological physiology through the lens of non-classical and non-classical rationality (MK) concepts. Mamardashvili , VS Stepin, MS Guseltseva). In looking at issues related to the interconnection between the brain, mind, and culture, the authors used non-classical psychological physiology to argue for the assumption that culture and the laws of development of the mind are irreducible to the physiological mechanisms of their implementation. Additionally, they argued for the methodological failure of attempts to solve the Cartesian psychophysiological problem by using various correlation techniques (even the most complex) to connect the brain, mind, and culture . The expansion of contemporary scientific knowledge was decided by a comprehensive overhaul of the conceptual framework. In addition to "classical" and "non-classical" approaches to solving fundamental and applied problems, there is also a "non-classical" research paradigm under active development (Mez-zich , Zinchenko , Krasnov , Pervichko , Kulygina , 2013; Pervichko , Zinchenko , 2014; Zinchenko , Pervichko , 2012 a, b; Zinchenko , Pervichko , 2013).

8. Application of Post-Neoclassical Method in Science

The application of the post-neoclassical method in science is followed by a re-evaluation not only of the general scientific methodology , but also of a particular scientific technique. The latter is manifested in the renewal of the ontological model of the research subject and, so, the creation of new experimental technologies and new scientific directions based on them. (“From physiological psychology to psychological physiology ...”) These technologies and directions are based on the research topic. AM Chernorizov , AG Asmolov , ED Schechter Both contemporary neuroscience and psychophysiology are part of an ongoing process of conceptual renewal. In the 1990s, the rapid development of non -invasive imaging techniques in brain activity (such as functional magnetic resonance imaging, fMRI and positron emission tomography, PET) allowed scientists to

understand cognitive processes (perception, thinking, and consciousness), as well as social cognition and social behavior.

Therefore, the last decade has resulted in the rapid emergence of new interdisciplinary research areas at the intersection of neuroscience and social science (especially social psychology and behavioral economics). (“From physiological psychology to psychological physiology ...”) These new research areas are termed "social neuroscience" and "social psychophysiology", respectively (Lieberman , 2007; Adolphs , 2009, 2010; Amodio , 2010). The procedure known as "conceptual alignment" resulted in the establishment of new scientific societies and laboratories, as well as educational programs and publications (academic in nature). Since 2006, the fields of "Social Cognitive and Affective Neuroscience" (SCAN) and "Social Neuroscience" have each seen the publication of their own special editions. Additionally, there is a scientific organization known as the "Social Neuroscience Society", and many essential monographs and tutorials have been written and distributed (Blascovich , 2000; Blascovich , Mendes, 2010). Changes in scientific paradigms have led to significant developments in the field of psychophysiology, which has evolved from what is known as "classical" (Wundaean) psychophysiology to the contemporary science of the neural mechanisms underlying mental processes and states. These developments caused psychophysiology to move from its " Wundaean " roots to a more modern form. In contemporary psychophysiology, emphasis is placed not only on neurons and neural networks (macro-objects), but also on different organelles, molecular and genetic processes found in brain cells. In 2006 Professor Richard Magin coined the word " nanoneuronics " to describe the unprecedented level of work being done in contemporary psychophysiology (Akay, 2006). The field of knowledge or ontology of contemporary psychophysiology is expanding both in "depth" (neurons) and "breadth" (many subfields of psychology). This development is happening at the same time. Here, new areas of expertise are being formed. Among these new competencies, important positions are taken by closely related fields of creative research such as “cognitive psychophysiology” and “social psychophysiology”. Many people think that a person's living conditions, and upbringing contribute to the formation of his personality. But environment and culture are not the only things that can have an impact. Social behavior has an evolutionary background, a genetic basis created by

(natural) selection and is anchored in the instinctive actions of animals. ("From physiological psychology to psychological physiology ...") This background can be traced back to the early days of the animal kingdom . The importance of investigating the biological basis of social behavior, which is not always visible under layers of culture, has not diminished; It is the task of researchers representing such diverse scientific fields as ethology, animal psychology, psychogenetics , evolutionary biology, evolutionary psychology, ethnography, and sociobiology . ("From physiological psychology to psychological physiology ...") The importance of investigating the biological basis of social behavior has not diminished (Asmolov et al., 2013 2014; Dawkins , 2014; Wilson, 2015; Wilson, 1976). In the disciplines of social neuroscience and social psychophysiology, brain structures associated with facilitating social behavior and intercultural communication are the focus of research (Lorenz, 1998; Palmer , Palmer , 2003; Asmolov et al., 2013, 2014; Schechter , Cher-norizov 2011; Falikman , Cole , 2014; Martin, Wiggs , Weisberg , 1997; Blascovich , 2000; Blascovich et al., 2010; Wangbing et al., 2011).

Psychophysiological research of the biological basis of human social behavior is based on the analysis of the evolution of social relations in communities of living organisms according to the following scheme:

Systems of inanimate nature (living systems of the community and anonymous communities), family groups and sexual dimorphism (personified communities), and communities of individuals with different levels of sexual dimorphism (Schechter , Chernorizov 2011; Asmolov et al., 2013, 2014).

This method makes it possible to combine various aspects of biologically-based social behavior research in the context of a single evolutionary developmental scheme and emphasizes areas considered to be within the specialization of social psychophysiology. Some features of human social behavior can be explained by principles that underpin brain function, which can also serve as a model for the way social bonds are structured within a community (Bekhtereva , 1994).

Studies of the psychophysiology of brain activity in relation to processes of social interaction have been recreated using various virtual reality contexts Studies of specific features of brain activity

in a virtual reality (VR) environment, models of ethno-cultural identity processes and the formation of interethnic and interfaith attitudes, "(virtual reality) The behavior of 'avatars' and the development of communication skills with partners belonging to different cultures or ethnic groups are some of the most popular areas of social psychophysiology. These studies investigate the important aspects of security in the modern world (Zinchenko , 2011; Zinchenko , Zotova , 2014), in terms of terrorism (Zinchenko , Shaigerova , Shilko , 2011; Chaiguerova , Soldatova , 2013; Soldatova , Shaigerova , Shlyapnikov). , 2008), extreme situations (Soldatova , Zinchenko , Shaigerova , 2011), extremism (Zinchenko , 2014), social instability (Soldatova , Shaigerova , 2002, 2015). These techniques hold great promise (Wiederhold , Rizzo , 2005; Baumgartner et al., 2008). Baumgartner et al. (2008) used functional magnetic resonance imaging (fMRI) to reveal brain correlates of subjective reality in their experiments with children aged 6-11 and adults aged 21-43 . also known as "the effect of presence", "being there" and "presence" among other concepts.

9. Leptin in Arquat Nucleus , Obrb Receptors Expressed by These Neurons

Arcuate nucleus , leptin exerts its effect on two separate neuron groups through the ObRb receptors expressed by these neurons . In one group, the orexigenic (feeding-inducing) neuropeptides NPY and AgRP are co-expressed, and the effect of leptin reduces the expression of both of these peptides (Elias et al. 1999, Elmquist et al. 1999, Schwartz et al. 2000). Expression of mRNAs encoding anorexigenic peptides, cocaine- and amphetamine-related transcript (CART) and -MSH (derived from proopiomelanocortin [POMC]) was found in the other population co-expressing these mRNAs. induced by leptin (Elias et al., 1999, Elmquist et al.). others 1999, Schwartz et al. 2000). leptin Its direct action on arcuate neurons results in inhibition of two peptides that are orexigenic and induction of two peptides that are anorexigenic . Since AgRP and -MSH are antagonistic ligands for the same receptor, the melanocortin 4 receptor (MC4R) largely expressed in the brain , the pathway just described is incestuous (Cone 1999). Food intake is reduced when MC4R is activated by MSH, but MC4R signaling via this receptor is endogenous antagonist . It increases when inhibited by AgRP or pharmacological antagonists. This reduces the hypophagic response to leptin (Fan et al. 1997). This route was found as a result of the combination of various

research lines that had been made before. The predominant state of obesity in the moon mouse was discovered to result from a gene rearrangement that leads to ectopic production of agouti, the protein that regulates coat color (Bultman et al. 1992). It has been discovered by transgenic and pharmacological experiments that Agouti - MSH causes obesity by inhibiting the action of MCR4 in the brain (Lu et al. 1994, Fan et al. 1997, Ollmann et al. 1997, Graham et al. 1997). , thereby mimicking the hypothalamic agouti homolog AgRP .

10. Maintaining Proper Energy Balance

Mice with the MC4R gene deleted are prone to obesity, and mice with one copy of the knockout allele also exhibit moderate obesity (Huszar et al. 1997). Remarkably, 4-5% of severe human obesity appears to be attributable to a mutation at this locus, and most affected individuals have a single mutant allele, which induces obesity through a haploinsufficiency mechanism rather than a dominant-negative mechanism. (Farooqi et al. 2000). This makes one believe that this pathway is necessary for maintaining proper energy balance and that its regulation is quite strict. This pathway is also responsible for obesity associated with a number of other uncommon disorders that affect humans and mice. For example, a mutation in the POMC gene that inhibits the production of POMC products such as -MSH causes obesity in both mice and humans (Krude et al., 1998). Similarly, mutations in the neuropeptide processing enzymes PC-1 and carboxypeptidase E are responsible for complex obesity syndromes in humans and mice, respectively. It is very likely that at least some of these syndromes are due to effects on POMC processing (reviewed in Barsh et al. 2000). Very recently, it was discovered that mice whose MC3R receptors have been surgically removed – a receptor similarly related and likewise mostly confined to the brain – develop obesity (Butler et al. 2000). It is interesting to note that obesity resulting from this lesion does not include the hyperphagia seen in MC4R mutants . Also, obesity can be combined with a decrease in lean body mass in addition to an increase in adipose tissue. Consequently, these two melanocortin receptors may induce obesity in a variety of unique physiological ways.

11. Right DLPFC and Left DLPFC

Prefrontal cortex of the right and left hemispheres (right DLPFC and left DLPFC, respectively) is the critical factor in determining children's (and adults') ability to experience "presence". Effect." They did this by using two different types of virtual environments that cause a strong (high Presence) and weak (low Presence) sense of immersion in VR. Using these environments, the authors demonstrated a raw fMRI study of brain activity with the right DLPFC and le They found that a negative correlation was discovered between activity in the DLPFC and the test takers' subjective sense of VR immersion, assessed on a subjective 5-point scale. A stronger correlation was found between higher brain activity in the right and left DLPFC and a decreased sense of presence (Baumgartner et al. others, 2008. The flow of visual information processed in the posterior parietal brain regions responsible for assessing perceptions of one's own body (or part of it) in external spaces is controlled by the right DLPFC, which influences the experience of the "presence" effect." ("From physiological psychology to psychological physiology ...") Also, the correct DLPFC is responsible for the "entity effect" . However, the lateral dorsolateral prefrontal cortex (DLPFC) is responsible for the quality and intensity of the presence experience . This is reflected in the medial processes involved in regulating activities related to self-reflection and 'introverted streams of consciousness'. It does so by connecting with the prefrontal cortex (Baumgartner et al., 2008). It is interesting to note that teens aged 6 to 11 tend to be more fully immersed in virtual reality than adults. Baumgartner et al. (2008), long-term patterns of maturation of the prefrontal cortex throughout postnatal development may provide a rational explanation for this phenomenon . This finding was published in the journal Nature Neuroscience . A series of studies investigating the presence effect, which relates to experiencing through the illusion of motion in the virtual labyrinth and the "out-of-body" phenomenon in virtual reality, has revealed the coordination mechanisms between the brain. proprioceptive, visual and vestibular systems in the process of perceiving one's own body (Costantini , Haggard , 2007; Ehrsson , 2007, 2009), as well as space and spatial orientation (Keshavarz subject of the role it plays in the formation of multimodal stimulus). The discussion of subjective views of the 'physical self' (the body) and, more generally, of 'self-reflection' and 'self-consciousness' processes is emphasized by works

devoted to the virtual 'out-of-body'. New types of therapy based on virtual exposure approaches make extensive use of a person's capacity to immerse themselves in a fully simulated environment (Muhlberger , Pauli , 2011). It is important to use a virtual environment as an instrumental framework for behavioral therapy to treat anxieties , phobias, post- traumatic disorders, drug addiction, and stress-related illnesses (Selisskaya et al., 2004; Homan , 2004; Voiskunsky , Menshikova , 2008; Ignatiev et al., 2009).

Methods from the field of psychophysiology are often used for such psychotherapy sessions and to evaluate the effectiveness of these sessions (Homan 2004; Cornwell et al., 2006; Galatenko et al., 2012; Lobacheva et al., 2013).

12. Conclusion

Objective psychophysiological control of the presence effect is extremely important for modeling and researching complex social phenomena such as inter-ethnic interactions in virtual environments. Studies of psychophysiology underlying the mechanics of social perception ("Brain Reading" and "Theory of Mind"): mirror neurons, emotional resonance , cognitive resonance, and facial recognition and emotional facial expression recognition gnostic neurons In the field of neuroscience and psychophysiology, an autonomous scientific movement has been developing over the past decade. . Examining the neural processes underlying social interaction is the focus of this field (Hari , 2002; Shen , Liu, Yuan, 2011). There are academic publications, monographs, and tutorials devoted to the concerns of social neuroscience ("SCAN"; "J. of Social Neuroscience ", “J. of cognitive Neuroscience ", "J. Human Brain Mapping ") and "J. culture and Brain"), as noted earlier. Signs of personality in a society include social conversation and people's biological uniqueness, both of which are important but insufficient on their own. Another need is for connections that can be made between an individual and other members of the community who are seen as distinct individuals. This particular type of psychophysiological perception first manifests itself in primates and, in its full development, begins to see the inner worlds of others

more different and intricately different from their own. It reaches people who can experience and judge.

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