

CONSIDERATIONS FOR A NEW APPROACH ON ACCULTURATION; FUNCTIONAL ASPECTS

Ph.D. Adriana BOROSANU¹

Abstract: *The present study targets the exploration and actualization of the research regarding acculturation, gives birth to new questions and looks for solutions in the context of opening borders, globalization and increasing territorial mobility. The ability to find adequate adaptive short term as well as long term solutions constitutes a necessity when it comes to bio-cultural survival in the context of current acculturation, also called “cultural shock” because of its rapid transformation rhythm and the phenomenon’s amplexity. The research in this field is fragmentary, which makes it difficult to understand the phenomenon. One thus imposes a comeback to the origins, a change in perspective towards an integrative approach that is capable to see the interactions between biology, cognition and social relations that represent the foundation for developing adequate and effective integration politics strategies, capable to maintain the specific and variability of cultural contexts. Regarding this topic, in the education concerning biologic and cultural survival and promoting a healthy life-style, along with value related landmarks, it is required to approach two factors involved in the transformation process, sleep and personality (in its functional-processual aspect), having these mediating our life choices (nutrition, education, beliefs, symbolic values).*

Keywords: “cultural shock”, survival, values, sleep, personality’

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The human being is the ontogenetic and phylogenetic result of the relationship between nature and culture which keeps characteristics ever since the primates and hominoids (Bălăceanu-Stolnici, Glavce, Berescu,

¹ “Francisc I. Rainer” Institute of Anthropology, Romanian Academy.

Borosanu, 2010). People are symbolic beings. They can be emotional, driven by desire, but also moral beings. The way human being has these inclinations reflects on one hand innate personality dispositions and on the other hand its own life history, these being reflected by personality. This fact requires the recognition of the psychological ground of social relationships, of cultural beliefs and practices (Ingram, 1996).

In the globalization, multiculturalism and growth of occupational and geographic mobility context, significant changes take place within the life-style which is usually referred to as a “cultural shock” (acculturation on multiple plans). This has consequences regarding mental and physical health. In this context which implies major transformations, our interest lies in exploring the adaptation process in terms of personality structuring tendencies and sleep-wake cycle development. This complex process regarding life-style changes and bio-cultural evolution was and is being approached from different perspectives, giving a fragmentary aspect to the research in this area which makes its understanding more difficult. As a consequence, one insists on imposing an integrative approach in order to notice the interactions between biology, cognition and social relations (Bernier et al., 2014). This type of approach may be useful in developing adequate and efficient strategies of integration politics that maintain the specific of cultural contexts. Cultural traditions constitute adaptation and survival strategies when it comes to context variability.

The concept of adaptation in bio-medical anthropology is defined as being the totality of changes that allow a person or a group to survive in a given environment. At a populational level, this consists of a set of bio-behavioral processes regarding adjustment and change which offers a population high chances of successive generations in a given environment. Regarding human species, adaptation depends on the cultural models of adaptation that are capable to ensure the satisfaction of fundamental survival need (food, protection, security, continuity through the future generation). Man, because of its culture, which represents a complex and specific adaptation mechanism that was built along the phylogenetic evolution is tributary to learned behaviors to the detriment of instinctive strategies. From and anthropological perspective, nature and the quality of intra- and inter-groupal relationships ensure survival in a given environment so that adaptation is a measure of the way in which bio-cultural resources are combined.

There are several types of adaptive mechanisms: genetic, physiologic, behavioral. By using cultural information, cognition and affect management, as well as, in the end, personality adaptation to the environment is accomplished (accompanied by the person's socio-cultural accomplishment). Accomplishing this management may maintain a good health state. Otherwise, personality disorders with a depressive-anxious background may appear.

An integrative endeavor of the adaptation process has to take into consideration (when investigating the mental that has been subdued to change) the specific bio-cultural values, as well as the internal transformation processes. The latter are the ones that act upon values and facilitate and filter the formation and transformation of mental representations on the self, the world and life¹.

In fact, we have a bio-socio-cultural database that has been subdued to a transformation/reprogramming process, guided by landmarks from each category. It is required to respect certain "safety" conditions/landmarks as basis for transformation to ensure the reliability of the cultural model and implicitly of cultural variability.

Regarding the issue of adaptation in the context of the "cultural shock", the bio-medical perspective reveals the fact that frequently, in the accommodation stage of the bio-cultural adaptation process, sleep related problems appear which can become permanent. These are usually being interpreted as sleep pathology and not as a reinterpretation, readjustment and informational reintegration effort of bio-psycho-cultural nature.

The biologic and cultural environment adaptation is being coordinated and realized by the central nervous system in the two functioning regimes, wake and sleep, by assimilating and integrating changes. Both functioning regimes use the same data-base that has been gathered in wakefulness. Information processing, interpreting, memorizing and understanding comes from both functioning regimes (Biberi, 1970; Hartman, 1995; Pace-Schott, Harnad, Solms, Blagrove, 2003; Coutts, 2008).

On the other hand, going over specialized literature from a psycho-cultural perspective regarding the adaptation (acculturation) process, highlights three study models (Berry, 1997, 2003; Rudmin, 2009; Van der

¹ Ph.D. thesis: Cristian Vasile. (2008). "Anthropological approach on Self of the old Age", sustained within the "Francisc I. Rainer" Institute of Anthropology, Romanian Academy

Vijer, 2011). These models take into consideration cultural, value related landmarks, and, more recently, they are interested in the internal, attitudinal component.

A major problem in the adaptation process in acculturation consists of the somatization reactions, fact that reveals a major impasse where the cognitive mechanisms cannot handle the changes. This may target the incapacity to integrate certain value related landmarks of symbolic nature that are emotionally invested or certain aspects related to biologic adaptation (metabolic, physiologic integrations of environmental elements).

Integrating changes and, specifically, metabolic and physiologic regulations (e.g. nutrition, thermoregulation, adapting to light/darkness) are made in the hypothalamic networks, particularly during sleep that plays a role in survival. Sleep deprivations may shortly lead to functional disorganizations, organic deteriorations of the brain and death.

Nutrition, a fundamental element in the acculturation process, is being integrated through the hypocretin/orexin hormone's system.

This hormone is produced by the neuronal groupings located in the lateral hypothalamus (LHA) and in the posterior one (HP) and has two functions. One of them is to stimulate the *appetite*, thus playing a role in the genesis of certain forms of obesity (Sakurai et al., 1998; Hungs and Mignot, 2001; Kok et al., 2003; Sakurai et al., 2007; Cason et al., 2010). The attachment mechanisms are being activated simultaneously with the appetite stimulation. Also in the HP predominates the expression of oxytocin which is involved in the attachment mechanisms and in the reward mechanism functioning of the Central Nervous System (Elena Choleris, Donald W. Pfaff, Martin Kavaliers, 2013)

The nutrition function is mediated by the inhibitory function of the paradoxical sleep (rapid eye movement). Indirectly, certain systems that are involved in the genesis of wakefulness are stimulated: the histaminergic, (the tubero-mammillary nucleus), noradrenergic (locus coeruleus) and serotonergic (the raffe nuclei) system. The hypocretin system thus makes possible the existence of powerful interactions between the reward system circuits and the neural networks involved in metabolism and the sensory-motor ones. This system is therefore an intersection of several neural networks involved in regulating numerous aspects of our quotidian lives in relation to the environment (Sakurai, 2007), through which strong interactions between life-style and metabolism are facilitated (Spiegel,

Tasali, Penev, et al., 2004). The same system enables the adaptation of nervous circuits to physiological and environmental changes through the constitutive neurogenesis process (Kempermann, 2003; Matsuzaki et al., 2009; Kim. et al., 2011). At the same time, it makes possible a powerful interaction between the neural networks involved in metabolism and the reward system (Sakurai et al., 2004; De Lecea, 2010), so that we are able to choose the proper nourishment for our metabolic balance, phylogenetically selected. (Halassa et al., 2009).

By the hypothalamic integration of circadian rhythms (Saper et al., 2005) the adjustment to the natural life environment, to the day-night cycle (through afferences from the optical fascicle towards the anterior hypothalamus and by connecting to the pineal system) is realized. The adjustment to the socio-cultural life environment is made through specific circuits, by controlling the circadian cycles of sleep (nourishment, stress hormones secretion, activity - which constitute “the context” or “the lifestyle”). The metabolic adjustments (the nourishment process), by intelligently integrating circadian rhythms, are thus a constitutive part of the socio-cultural context of identity, sleep patterns being different and specific in Western or traditional societies. Recent researches reveal the fact sleep architecture is rooted in children’s raising and care-giving practices. The sleep physiology and architecture, the diversity of sleep types and its variability are molded ever since birth, according to certain psycho-social and cultural landmarks, fact that was highlighted by ethnographic and transcultural studies (McKenna et al. 1990; McKenna, 2000; McKenna, Mosko, 2001; McKenna, Volpe, 2007; McKenna, Gettler, 2007; Trevathan, Smith, McKenna, 2007).

A first interest regarding sleep is related to gender dymorphism, the differentiations targeting physiology aspects. Another aspect of sleep’s gender dymorphism targets aspects that are determined by the natural and cultural environment and psycho-social life of the investigated subjects. For newborns, sleep architecture (which differs from the adult’s), the respiratory and cardiovascular functions are not influenced by external stimuli (McKenna, Mosko, 1994; Mosko et al., 1996; Mosko et al., 1997). Wakefulness, sleep and transitions appear to be produced by regulating mechanisms that belong to a dynamic system, which starts to be molded by episodic, dysregulated “inputs” offered to newborns by caregivers who sleep in their proximity (co-sleepers). The caregivers’ sleep acts as a buffer

that has the role to organize the newborns' sleep and to protect them from risks in the process of environment adjustment (Mosko et al., 1993; McKenna, 1996). There are, though, cultural variations differentiated by gender regarding the way sleep develops that are fixated by the children's care-giving practices.

In traditional societies, in contrast to Western societies, sleep development takes place together with more sleep partners of varying ages, as well as in proximity to other beings, thus creating social interactions. The moment of falling asleep and waking up varies, being occasionally marked by the development of certain rituals during sleep. It is, therefore, possible that the sleep patterns, architecture and ontogenetic development have specific environment conditions as substrate, starting from childhood. Therefore, it is necessary to take into consideration the biological correlates and the material and social contexts where sleep develops (the feeling of inherent danger under certain circumstances), as well as the life environment (work, social activity, rituals, role and status, beliefs about nature and the role of sleep)¹.

In humans, choices concerning life related to environment are filtered by the personality structure. The preoccupation for the scientific study of personality begins at the end of the 19th century. This branch has the individual in the center of attention and focuses on measuring the stable traits which shape the behavior. Doing this, the collective aspects of personality remained less studied (groups social identity, symbols). The concept of personality is one of the most complex, so that G.W. Allport, one of the most important founders of personology, enumerates over 50 definitions. Several personology schools (psychoanalytic, socio-cultural, factorial theory etc.) have been developed, but Allport is the first to make a change of attitude, being interested in man in its uniqueness, in the psychology of the healthy man who has the ability to acquire new patterns throughout his entire life. He also criticizes the position of those who overvalue the role of the subconscious, as well as the one of reactivity to external stimuli, to the detriment of the reflection capacity and awareness and decision-making processes (Allport, 1991, Barenbaum, Winter, 2008).

¹ Ph.D. thesis: Borosanu Adriana. (2013). "Anthropological perspectives on sleep (typology, personality during wakefulness, sleep and dreaming)", sustained within the "Francisc I. Rainer" Institute of Anthropology, Romanian Academy

Allport's intuition referring to the self-actualization capacity is supported by new research in neuroscience that refers to the plasticity of neural networks, to which, more recently, the neurogenesis processes are added. The latter take place in neural regions such as the hippocampus, the parietal-temporal-occipital intersection, the prefrontal lobe, the base of the corpus striatum, areas that are involved in human learning, memory, communication, assessment or decision-making.

The need to quantify personality in order to manage major changes and keep them under control, as are the ones happening in the acculturation process in the current context, previously existed in situations where the population kept becoming more numerous and diverse or even in armed conflict situations.

Another approach of personality (where the focus is no longer on differentiating traits, like in the Western culture) highlights its functional aspect. Thus, aspects related to psychopathology, psychiatry or neurology, are targeted. These make the difference between normality and pathology and a vulnerable area. Robert Woodworth¹, psycho-physiologist, experimentalist, with a solid background in neurology and psychiatry, working alongside Sherrington, William James, John Garcia, Cattell, raises the problem of measuring an aspect of personality in an analytical way, namely neuroticism (general emotional instability), in functional terms. In this regard, at the beginning of psychology as science, he created (using means related to the person's psycho-physiology) an instrument that assesses people's capacity to cope with major life changes. This is the first personality test, named Woodworth Personal Data Sheet that took into consideration aspects regarding human physiology, neurotic symptoms expressed in the person's psyche before the moment of confrontation with a critical situation. It is the first self-reported inventory that reveals aspects of personality functioning.

Later developments that were based on this test differentiated other functioning axes (tendencies) in personality structuring (simple emotivity, obsessive-psychasthenic, schizoid, paranoid, depressive-hypochondriac, aggressive, instability, anti-social tendencies), rated on different functioning levels (normality, border, pathology). These functional axes are, in fact,

¹ Robert Woodworth was chairman of the Anthropology and Psychology Division, of the National Research Council of USA, (1924-1925), and reunited the research work from this field with the child development one.

adaptation types of human personality to the requirements that appear in the environment. They have a genetic basis, but the activation is configured by the environment conditions, being triggered and filtered by personality. Ulterior developments of Woodworth's Inventory gave up on sleep development related items, although sleep patterns target collective aspects of personality, as it was highlighted in future researches.

R. Woodworth also laid the foundation of a dynamic psychology, applying it in education, being interested in both the introspective and the objective variables in his research, because if each of the two types of variables is taken into consideration exclusively, it constitutes an extreme position.

The entire work of R. Woodworth written in his last years of life constitutes the ground for the avant-garde researches concerning knowing man in a relational context (Graham, 1967).

With regards to the Romanian research corresponding to the period when R.W. activated, the paper "Social adaptation" (1937) by Florian Ștefănescu-Goangă, Alexandru Roșea and Salvator Cupcea is published. This signals the concordance and original contribution of the Romanian research to the international one. The Romanian authors propose an original method of diagnosing adaptability, starting from the analysis of the adaptation process as a biological phenomenon under the conditions of diversity given by gender, age, socio-cultural environment, with particular regards for the person's constitutional factors with a dynamic configuration resulted from the interaction between heredity and environment. For the assessment of the emotional instability level, authors recommend using Woodworth Psychoneurotic Inventory (Chelcea, 2002).

In this working paradigm, we conceived the post-doctoral research¹ on the acculturation process of a Romanian pre-adolescent lot of research, age when the personality is, from a biological point of view, right before the "hormonal storm" of adolescence and, from a psychological, formative point of view, it is moldable.

For this study, we chose rural communities that have a high percentage of subjects' parents who are/were gone abroad to work for several years (over 30%). We applied an anthropologic questionnaire that

¹ Post-doctoral project title: "Anthropological aspects of bio-cultural landmarks in the socio-economic transition period in the Romanian village; influences of Western-European cultural models"

targets socio-demographic, life-style, educational and cultural (traditions, elements of urbanism) aspects. In the investigation of their life-style we also introduced items for assessing night sleep duration, the time it takes to fall asleep and the subjects' state when waking up. These items complement the subject of the post-doctoral research in accordance to what we previously argued and to R. Woodworth's initial approach, targeting the ability to cope with major life-style changes. We also used the standardized Woodworth-Matthew Inventory to assess personality structuring tendencies and their functioning levels.

The results of our research reveal the fact that the subjects' night sleep duration from the considered lot of research lies within the recommended normality interval¹, specific for their age, even if they were left in the nuclear family's care, of in the enlarged family's care or if their parents have left abroad for work or not.

Even though sleep duration falls within typical age limits, its quality drops, regardless of gender, meaning that over 30% of them experience difficulties falling asleep, taking them over 30 minutes to do so which constitutes as a general problem in the context of acculturation in our country.

Regarding the resting condition of pre-adolescent subject when waking up from the night sleep we noticed for both boys and girls that the majority from the totality of studied subjects is tired (over 40%). For girls, we notice that there is a significant association of fatigue when waking up from the night sleep with the fact that their parents are/were gone abroad for work. In this regard, the girls whose parents are/were gone abroad for work are more frequently tired in the morning, when waking up, than the ones whose parents stayed in the country.

In our research, concerning tendencies in personality structuring, we noticed the preadolescent's openness towards change (functioning in normality or in a borderline level, in evaluating emotional stability, aggressive tendencies and anti-social tendencies respectively). The borderline functioning level can be seen as an adaptation effort to the major changes they have to handle and not as pathology.

There is no association between sleep duration, sleep-wake transition parameters (the time it takes to fall asleep, the subject's rest condition when

¹ Sursă Web: National Sleep Foundation <http://sleepfoundation.org/media-center/press-release/national-sleep-foundation-recommends-new-sleep-times>

waking up) and personality structuring tendencies in the context of our study. Each of these aspects has an independent configuration that reflects the transformation process, which could mean the fact that both factors are sensitive to the acculturation process.

If the personality from the state of wakefulness, awareness is the one that chooses and filters information and through decisional processes adheres to value-contents, sleep also represents a functioning regime of the Central Nervous System, where the selected information is being processed and organized in a specific way. Even though one does not very clearly know the way this thing is being realized, it is certain that the informational functions that sleep fulfills are connected to the individuals' survival and that this presents a cultural variability within the limits imposed by the species.

In this regard, in the information and education concerning a healthy life-style for the biological and cultural survival, in the "cultural shock" context, one requires the approach of the two factors, sleep and personality which mediate our life choices (nutrition, education, beliefs, symbolic values). The ability to find adequate adaptive solutions, both for the moment and on a long term, constitutes a necessity for bio-cultural survival in the "cultural shock" context, where one requires a good management of the wake-sleep process and the functional-processual component of personality.

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