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TRANSFORMATIONS OF PERSONALITY STRUCTURES IN STUDENTS WITH COMPUTER GAME ADDICTION

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Abstract

The article outlines the conclusions of various studies on the features of computer game reality and the transformations undergone by various components of the semantic structures (goals, motives, values, attitudes, orientations) in students with computer game addiction. Original experience values lose their appeal and become only intelligible values, but the person does not experience them. A computer game addict's values and motives focus exclusively on experience values (game experience). An addicted student's motive, as the cause of an action, is almost always in the past (time is irreversible). A computer game addict identifies any attractive future opportunity with a pleasant game-related episode in the past, seeking to artificially compensate for the shortage of experience values, gradually stops constructing new goals and ceases his or her own development, remaining afterwards in a state of dynamic rest which is a constant scrolling of the same goals down and up. Our studies have shown that experience of computer game addiction of students is a process of creating a mental image of a mental image (a recursive mental image). An addicted student does not use computer game to achieve something real, but rather to update an imaginary image of achieving something, i.e. a recursive goal (recursive mental image).

Keywords: Semantic structures, game-dependent students, goals, motives.

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1. Introduction

It must be acknowledged that, up to now, there are very few studies devoted to the fundamental and psychological foundations of addiction. At the same time, there is already a significant amount of research into neurobiological features of addiction (Zhang, Bai, Jiang, & Zhou, 2019; Baturay & Toker, 2019; Chen, 2019; Erol & Cirak, 2019; Dong & Potenza, 2014). In earlier studies, we assumed that our studies have shown that experience of computer game addiction of students is a process of creating a mental image virtual reality fundamentally transforms addict's psychic reality, which then begins to obey its own internal and independent laws, and these laws cannot be described in the framework of classical approaches to psychology. In contrast to this point of view and according to Zeygarnik (2015) and others, the general laws of psychic activity in case of pathology do not cease to act and are not replaced by any special laws determined by the features of this pathology, they only refract in correspondence to the new conditions of action, when they define a defective individual's mental life. This theoretical assertion follows from the assumption that the psyche is an invariant and linear system whose laws do not change as a consequence of changes in external conditions. Nevertheless, in cases of pathology (computer game addiction), there are at times significant changes in the internal conditions of the system (psyche), i.e. the system changes and, therefore, its regularities change too. This means that computer game addiction is not just a replacement of old "lenses" with new ones that do refract according to new conditions. Obeying the previous laws of the "optics of lenses", this is in fact a replacement of the "eyes" themselves, whose regularities differ significantly from those of "lenses". To some extent, the refraction of mental activity laws during the above-mentioned transition from pathology to normal condition is actually a change in these laws. Apparently, there are general psychophysiological patterns that do not change as a result of pathology, but that is not the case at the level of mental processes. It seems that the general teleological foundation disappears sometimes in both the pathological and the normal psyche. As a confirmation of this statement, we shall show in this paper which specific psychological features are acquired by computer game addicts. Moreover, mental processes, according to non-classical psychology, do not always take place within the framework of the activity model, that is, within the framework of the structures prescribed by classical activity theory.

2. Problem Statement

It thus happens sometimes that the theoretical conclusion of an identity between the laws of mental activity in the pathological psyche and those in the normal is not true. Perhaps this is the reason for the low effectiveness of some psychological approaches to the psycho-correction of pathologies, in particular, that of computer game addiction. Students who have learned the world of computer game illusions by virtue of the effect of contrast and comparison of both worlds are no longer able to return to the real constant world. It would therefore be incorrect to transfer "mechanically" personal values from the real world to the computer game-dependent student's virtual world. Consequently, the activity approach hypothesis claiming the possibility of a training offering new values that would be ranked higher in terms of intensity and completeness than those of game experience seems quite dubious, if the features of computer game dependence are not taken into account. In this work, we study therefore the

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transformations that traditional concepts such as motive, goal, mental image, orientation (attitude), and others, undergo in the context of computer game dependence.

3. Research Questions

We conducted a study of the semantic structures of game-dependent students (Garifullin, 2004). By analyzing a game-addicted student's sense-forming values, we have shown that the effectiveness of the psychological correction of gambling addiction depends on which sense-forming values have become the main ones after psycho-correction.

Game-dependent students of the first group (58%), for whom the main values of life were primarily those of experience (that is, the experience itself was the object that evoked a positive emotional-evaluative attitude), made a more successful recovery. They gained the ability to positively experience values where there seemed to be none at all.

In general, the entire first group could be divided into two subgroups: those accomplishing primarily activity experience values, and those accomplishing non-activity experience values.

For the students of the first subgroup (21%), activity experience values consisted not only of experiences of the ultimate goals and products of activity but also of the process of achieving goals related to overcoming operational barriers. At the core, activities were for those students some kind of work without which they felt anxiety.

For the students of the second subgroup (37%), the activity experience values were secondary, giving way to non-activity experience values (outdoor recreation, listening to music, love experiences, and various non-activity manias: religious addiction, gluttony, television addiction, etc.).

Our studies have shown that, in the time after computer games, a person may discover previously unseen values. Owing to the values of game-related experiences, the original experience values lose their appeal and become only intelligible values, but the person does not go through them, does not experience them. All values and motives of a game-addicted students focus exclusively on experience values. Students who managed to focus on activity experience values to compensate for non-activity experience values were less inclined to computer games (first subgroup). For these persons, actions in the system of activity were independent experience values, i.e. the goal of the activity was in the process itself. These students were able to enjoy the process of activity rather than its result. Thus, the attainment of a successful psychological correction of game addiction requires, apparently, the creation of such conditions under which the individual involved in the process of activity perceives the goals of action and the actions themselves as independent experience values. And this happened in a natural way, i.e. thanks to means that are harmless to health. In this work, this problem has been solved by applying borderline analysis (Garifullin, 2004).

Game-addicted students seeking to artificially compensate for the shortage of experience values, bypassing actions and volitional efforts gradually stop constructing new goals and cease their own development, remaining afterwards in a state of dynamic rest which is a constant scrolling of the same goals down and up. All this eventually leads to the use of games.

Game-addicted students of the second group (42%), for whom intelligible values became predominantly the main sense-forming values of life after psychological correction, made a relatively less

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successful recovery (compared to the group where experience values played the main role). In general, the entire second group could be divided into two subgroups: those accomplishing primarily activity intelligible values (22%), and those accomplishing non-activity intelligible values (20%).

Game-addicted students accomplishing activity intelligible values were able to achieve a result more successfully (in the sense of a work aimed at achieving a final result). These values acted mainly as intelligible ones for other people. According to our research, most game addicts in the second group had attributes of success, and yet experienced an existential emptiness leading sometimes to suicidal desires. This was due to the fact that all the above-mentioned values were only intelligible ones, values imposed by society. They lacked a positive-experienced foundation, and as a result, these values were imaginary, purely formal. As a consequence, there was a constant mismatch between values as results and values as anticipated mental images (Garifullin, 1997). Consequently, the meaning of life for most students had chances to be a quasi-idea if it was based on intelligible values. Students were therefore constantly disappointed with the values achieved and began to accomplish new ones, thereby constantly creating and destroying quasi-ideas. Unfortunately, most game addicts got tired of such a search for meaning and began to look for real experience values in other ways, and finally, started to use games.

Game-dependent students for whom non-activity intelligible values predominantly became the main sense-forming values of life after psychological correction had the poorest recovery. These values acted mainly as values for the addicts themselves. These students determined values according to the orientation or attitude that they maintained toward circumstances, situations, or their own fate. In this case, students' understanding and evaluation of their selves as strong-willed, accomplished personalities who could not play to games became a value. These understanding and evaluation were mainly formed thanks to the environment (classmates, parents, friends, loved one). The value was mostly intelligible just for that reason. It guided the student to achieve the goal, namely to live in reality, being responsible, necessary, and so on. Thanks to this, there was a confrontation of the anti-game orientation against the destructive attitude of a game-dependent person. The person, in this case, may have negative experiences. However, owing to one's own fear of fear of punishment, to a sense of responsibility toward relatives, to a sense of responsibility based on the awareness of being needed for oneself and for others, to one's own bitter past, etc., the student for a while acquires anti-gaming attitude. Such game-dependent students were not able to live for a long time with a non-activity intelligible value. This value therefore led eventually to a loss of zest for life and, as a consequence, to the use of computer games.

The addicted person's motives also undergo transformations. By psychological analysis, we showed that the addict's motive, as the cause of the action (82%), is almost always in the past (time is irreversible and only moves backward while a motive arises). A game addict identifies any attractive future opportunity with a pleasant game-related episode (winning image, excitement) in the past. For a normal person with a sufficiently high level of creativity, time is reversible (that is, time may jump forward and backward), and the motive is therefore never left behind, it "runs" forward, and that is why it can generate and support more and more new actions in life creativity.

Next, we will analyze the mental images and goals of a game-dependent person. Our research (Garifullin, 2015, 2000) showed that computer game and excitement is a process of creating a mental image of a mental image (a recursive mental image). An addicted person (78%) does not use a

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game to achieve something real but rather to update an imaginary image of achieving something, i.e. a recursive goal (recursive mental image). A recursive mental image, unlike a traditional mental image, displays reflexivity and reflects in the psyche its own current states. A recursive mental image, unlike a mental image of oneself, does not exhibit the whole content of the psyche (world outlook, self-esteem, etc.), but only an executable act of activity, regardless of whether this act is external or purely psychic. A recursive mental image is a scoreboard reflecting the current state of unfolding mental images. "Mental image" and other close concepts were introduced into the terminology of psychology with the purpose of describing the properties of both the mental reflection of the external world and the mental regulation of activity, whereas the concept of recursive mental image is important basically from the point of view of the idea of reflecting the states of mental formations on the psyche and thus the possibility of psychic regulation of mental processes, i.e. psychic self-regulation.

4. Purpose of the Study

To investigate fundamental and psychological transformations of personality structures in students with computer game addiction.

5. Research Methods

A decisive role in the study was assigned to traditional scientific methods: analysis, synthesis, generalization, classification, identification of cause-effect relationships. In addition, we applied other methods, namely the method of natural experimentation proposed, Freud's free-association method directed toward the recollection of experiences and reflections (thoughts) preceding the stage of initial game on computer and succeeding it, participant observation and analysis of the research objects' activity, content analysis, and finally, the author's observations of his own activities as a psychologist.

6. Findings

Thus, for game-dependent students, the notion of goal in the traditional sense is replaced by the concept of a recursive goal, which is kind of a "screen" on which the current unfolding goals are presented. A person uses games either to artificially create an illusion of a reached goal or to raise goals already accomplished by real activity to the level of goals as anticipated mental images. People that are prone to use games either cannot accomplish their life goals at all or are constantly disappointed since goals (as anticipated mental images) always seem more attractive than the results obtained, i.e. there is a lack of coincidence between goals and results. The coincidence occurs only for a while at the initial stage of game use, but to keep it afterward, it is necessary to increase the game time.

While researching the attitudes of a game-dependent students, we have been able to determine (Garifullin, 1997) the main destructive orientations found in game-addicted students: orientation towards an imaginary satisfaction of needs (89%), orientation aimed at a quick satisfaction of needs with little effort (76%), orientation to passive defence when facing difficulties (63%), orientation to reject responsibility for own deeds (60%), orientation toward the preference of egocentric motivations rather than altruistic ones (52%), orientation toward a low mediation of activity (34%), orientation to

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content oneself with results that are temporary and not quite adequate to the needs of an activity (42%). At the same time, according to the above-mentioned studies, it turns out that any destructive personality trait is an inclination to game addiction and develops a game addiction. Is it really the case? As a result, the subject of "game addiction" seems to disappear, turning itself into the more general subject of "destructiveness", and if the student defeats it, addiction can be cured. However, according to our observations, this is by far not the case.

Our studies have shown that the reduction of game addiction to an activity orientation is not correct. This process is more complex and is aimed at creating a virtual reality that cannot be reduced to only orientations. In other words, game addiction is not reducible to other activities not related to game dependence. All the above confirms once again that it is incorrect to apply classical approaches (in particular, the activity approach) to psychological correction without taking into account the features of game addiction. The activity approach, developed for a normal constant perception, can be used only at initial stages of game addiction.

We have demonstrated that a game-induced illusion is a complex superposition of an orientation and a virtual visual-audial-kinesthetic context, as a result of which a virtual perception arises. In the case of game addiction, orientations arise not only as a result of activity mechanisms, but also thanks to other poorly understood mechanisms of virtual perception.

7. Conclusion

In the course of our research, we contrived various methods aimed at reducing the positive perception of computer game reality: a) destruction of mental images of computer game reality (erasure from memory); b) transformation of mental images of computer game reality into trivial mental images; c) compensation for computer game reality using other virtual realities, at the expense of internal mechanisms of the psyche.

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