Психология. Журнал Высшей школы экономики.
2015. Т. 12. № 1. С. 5–12.

Специальная тема выпуска:
Психология игр в Интернете

ON THE PSYCHOLOGY OF COMPUTER GAMING

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Abstract

This article introduces this special issue of the journal, dedicated to research into the psychology of playing computer games. The interdisciplinary character of gaming-activity research is emphasized by the example of ethnographic, culturological and psychological works. The characteristic view of ethnographic science, which sees gaming as entertainment and a way of spending spare time, is dominant in research practice, including psychological and pedagogical practice. This is connected with studies on gaming activity and the psychological qualities of computer gamers. 25 years of psychological research in computer game-related activity in Russia are reviewed. The article refers to such lines of conducted research as the study of personality traits and cognitive characteristics of gamers, their implicit beliefs, and the psychological addictions of gamers. However, the frontline of foreign research is significantly wider and some trends of these works are insufficiently represented in home scientific literature. Among them is the disputed issue about whether or not aggressive computer games cause an escalation in aggression among gamers, as well as about the specifics of cognitive processes in gamers. Contemporary approaches to finding solutions for these questions are explored on both analytical and empirical levels in the articles that constitute this special issue. In one analytical article the argument is put forward that contemporary multi-user games encourage not only gaming activity, but communicative activity as well, and to some extent represent something like a “club”.

Keywords: videogames, gameplay, psychology, anthropology, entertainment, historical approach, cognition, aggression, implicit knowledge, addiction, culture.

The study was supported by the Russian Foundation for Basic Research, project № 15-06-06168, and the Russian Foundation for Humanities, project № 14-06-00740.

For psychologists, computer gaming is to a greater extent a phenomenon of individual history and — more widely — of the individual culture of a distinct person, which does not negate the study of games, typical for a certain age and historic time period. Along with this approach the view on gaming as a phenomenon of mass culture is represented, characterized by works in culturology, ethnography, sociology, history and the philosophy of gaming. Also, studies on the technical realization of game procedures are represented in the literature on computer science.

A social-culturological approach is widely known through the work of Johan Huizinga (1955), *Homo Ludens*, translated into Russian in 1997. It is well complemented by the work of the sociologist Roger Caillois (1958), translated into Russian in 2007, from one side, and the thesis of the Christian theologian Hugo Rahner (1965) from another. The latter thesis, translated into Russian in 2010, emphasizes the game essence of religious and church activity, drawing to the understanding of "game theology" the thoughts of not only the church fathers, but also of authors of pre-Christian antiquity. He advocates spiritual wisdom, freed from "meaningless seriousness" and "prepared to accept the unimagined and incredible". According to his words, and in his terminology, "To play is to yield oneself to a kind of magic, to enact to oneself the absolutely other, to pre-empt the future, to give the lie to the inconvenient world of fact" (Rahner, 1965, p. 65).

Reflections on the nature of gaming take a significant place in works on the philosophy and culture of entertainment, in which the specialists presume that gaming can be considered as nothing more than a particular example of entertainment (Fromberg & Bergen, 1998; Vorderer & Bryant, 2006). Thus, Clay Shirky notes that the entertainment industry blossomed after World War II, when social achievements led to a more distinguishable reduction of working hours and the appearance of an unprecedented resource — a surplus of spare time (Shirky, 2010). Along with this surplus of spare time, Shirky insists, a "cognitive surplus" appeared, i.e. some cognitive resources became freed up. As an easily understood example, the author recalls spending and wasting away memory resources in the 20th century: indeed, everyone had to remember dozens of phone numbers to be able to interact with relatives, friends, or organizations. Humans enthusiastically gave up this inconvenience as soon as teletechnology progressed to support electronic lists of phone numbers and quick-dial services: an economy of cognitive resources, or surplus, is the result (Shirky, 2010). The appearance of the Internet opened the opportunity to engage in creativity along with the consumption of entertainment, in psychological and social development, to find like-minded people and to bond with them: it turns out that in our spare time it is possible to make even bigger differences for communities (and humanity as a whole), than during productively (or not-so-productively) spent working time.

It is essential to acknowledge that the process of cognition and creative self-expression is able to affect masses of people who possess relevant knowledge (or are ready to acquire such knowledge), and who are purposeful and in possession of time reserves. It is

worth adding that today free and comparatively cheap Internet access is presumed, and so the interaction of groups of creative people, interested in achieving a desired outcome, is provided.

The availability and even "surplus" of spare time (and freedom as a whole), as can be suggested, is an even more valuable resource than encyclopedic erudition. Thus, Nikolay Khrenov (2005) links the development of "game's element" in Russian culture with the appearance of time resources for leisure in nobility culture and later in urban ("asphalt") culture, and partly in common culture. The author thoroughly traces the elements of imitation (for example, to British examples), as well as the elements of originality formed in Russia in the gaming patterns of spending spare time: the tendency to have time for leisure and to avoid professionalization (including "free professions"); remaining dilettantes and amateurs for life; and connections with these tendencies or elements of "theatricality" of everyday life. The ethnographers Igor Morozov and Irina Sleptsova (2004) link the development of gaming rites and ceremonies in the peasant environment of the Russian North with the obvious "seasonal-climatic conditions" and, in particular, with long breaks in grueling field work. Maria Tendryakova is investigating gameplaying traditions across cultures, ethnic communities and times; in some of her works an emphasis is placed on the particular specifics of playing within the Russian culture during the Soviet period (Tendryakova, 2011) and to the virtual behavior of video gamers (Tendryakova, 2008).

Within the ethnographical context, gaming is viewed as entertainment, as a way to spend spare time; this approach often dominates in research practice dedicated to the in-depth (including psychological) analysis of computer gaming activity and the psychological specifics of gamers, especially those who play computer games. This is not a rule, though: for example, in a collection of essays and articles (Fromberg & Bergen, 1998) published in book form in the USA in 1998 and in a Russian translation in 2003 the numerous authors did not limit themselves to the ethnographical view of gaming. Instead, they adopted an interdisciplinary approach (in the foreword it is called "encyclopedic") that took in mythology, philosophy, methodology, psychology, pedagogy, linguistic pragmatics, and the cultural studies of gaming. The collection includes discussion of the benefits of play for children: from demands to provide play opportunities for children to reviews of companies that pioneered the commercial mass creation of toys for children, and developed advertising that both spread their toys' popularity and increased the companies' profits. The cultural-historical approach of Lev Vygotsky and his disciples is also considered.

The years of initial publication of the book and its subsequent translation into Russian are mentioned for a reason: in the encyclopedic collection of works it was possible only in a suppositional tone to argue about computer games and their future on the Internet (in a chapter written by Eugene Provenzo Junior). Despite all of Provenzo's insights, as well as those of the other participants in the book, it seems that the development of the gaming activities of children and adults, including seniors, who were not

forgotten, after 1998 (the book having been prepared somewhat earlier) did not always go in those directions which the authors anticipated (Fromberg & Bergen, 1998).

If the book's preparation had lingered for several years, it would probably have become an even more acute work; as it is, it appears today as a brilliant record of research in gaming activity in the pre-Internet age. It is precisely its appearance on the eve of the change of eras for gaming activity that makes the book so interesting; in parallel to that we recall this fragment from the memoirs of Lev Vygotsky's daughter: "Lev Semenovich with great respect referred to scientific predecessors (even when he didn't share their views) and instructed his disciples to do that. Thus, N.G. Morozova remembered that she once received from Lev Semenovich a book by G. Gross with an inscription, which said: 'This is the best that was said about game, and it needs transcendence, as it is the naturalistic theory of game'. But then he wrote: 'Don't forget that we stand on his shoulders. We are higher, we see farther, but we see that because of what he did before us'" (Vygodskaya, 1996, p. 132).

The famous book *Games People Play*, by Eric Berne (1964), which once belonged exclusively to psychological practice, has instead to a large degree became an element of cultorological discourse in Russia. Berne's book was first published in Russian in 1988, though it was translated as early as in 1972; manuscript copies of the translated book were widely shared and copied within intellectual communities as a *Samizdat* issue.

For psychologists the exemplary polythematic study on gaming is considered to be the final work *Psychology of Play* by Daniil Elkonin (1978), the outstanding representative of Vygotsky's school. The book *The Psychology of Play* by Susan Miller (1968), translated into Russian in 1999, is useful as a review source. To address contemporary works one has to admit that today the professional approach to the study of gaming does not allow culturologists and philosophers, nor historians and ethnographers, psychologists and pedagogues, to turn their backs to the manifold and multifaceted specifics of computer games. They have taken such an essential place in modern culture that it is impossible to turn a blind eye to them. On that score there is no denying that the decision of the editorial board of the journal Psychology to form a special issue dedicated to psychological research on computer games and gamers is very well timed.

Psychological research on computer games and computer gamers in Russia can be traced back to 1988 (Shmelev et al., 1988; Tikhomirov & Lysenko, 1988). In a relatively short time this field of research became extensive (see Kerdellant & Gresillon, 2003 — translated into Russian in 2006; Shapkin, 1999; Voiskounsky, 2010a; Vorderer & Bryant, 2006). It is true, though, that the frontline of the research, conducted for over 25 years in our country, is less representative than its foreign counterpart. One can name, for example, studies on the personality traits of computer gamers (Fomicheva et al., 1991; Ivanov, 2008; Voiskounsky et al., 2005), specifics of their cognitive processes (Cheremoshkina & Nikishina, 2008; Kornilova & Tikhomirov, 1990; Poddiakov & Eliseenko, 2013; Vasilyev, 2002), studies on Internet-addictive

behavior of gamers (Antonenko, 2013; Wang et al., 2011; Voiskounsky, 2009), studies on implicit beliefs of gamers about computer games and possible psychological consequences of this hobby (Luzakov & Omelchenko, 2012; Voiskounsky, 2010a; Voiskounsky & Avetisova, 2009).

At the same time, little research has been done on certain trends that dominate in foreign works. These include highly controversial notions on perspectives of escalation of aggression and violence in computer gamers — or the denial of such perspectives. Publications on this subject are plentiful (see the reviews: Voiskounsky, 2010a; Voiskounsky, 2010b), although in most works it is stated that the escalation of aggression really does take place. There is, however, a group of researchers who have failed to find any cause and effect dependency between an interest in playing computer games and the development of aggression in teenagers. The results gained by these scholars are often ignored in Russia (see Burkova & Butovskaya, 2012); happily, two eminent representatives of this group of researchers — American psychologists Cheryl Olson and Lawrence Kutner — have kindly agreed to prepare a detailed and nuanced summary of this view; the editorial board decided to publish this article without translation, i.e. in English.

Another trend of acute research is dedicated to the study of cognitive processes (perception, memory, attention, cognitive control, decision-making, and others) in computer gamers. Prior to the current issue of the journal, almost exclusively analytical (i.e., non-experimental) publications in the Russian language were dedicated to this trend (already booming abroad) of research activity; this special issue contains a detailed article with recently received empirical results. The references to the corresponding literature are provided explicitly in the aforementioned article.

Finally, we may say that something happened that had to happen eventually: a subtle psychological article written by a non-psychologist. Sergey Belozerov is not a psychologist, but he became fundamentally acquainted with psychological literature and was able to present in literate psychological language a range of original considerations, formulated as the result of the author's long-term gameplay activity, mediated by the Internet. No wonder that participation in computer game activity prompts the gamers themselves to think about the psychological aspects of such games, and the most sensitive representatives of the gamers' community happen to be ready to present the sum of their reasoning. The thesis, substantiated by the author, is worth noticing: that the most 'advanced' modern multi-user games are something like a center of communications or a 'club', in which it is usual to gather even when the game activity by itself doesn't arouse much interest.

Interested readers are invited to read the articles in Russian and in English, comprising this special issue.

References

Berne, E. (1964). *Games people play: The psychology of human relationships*. New York: Grove Press.

Burkova, V. N., & Butovskaya, M. L. (2012). Violent computer games and the problems of aggressive behavior in children and adolescents. *Voprosy Psikhologii, 1*, 132–140.

Caillois, R. (1958). *Les jeux et les hommes*. Paris: Gallimard (in French).

Cheremoshkina, L. V., & Nikishina, N. A. (2008). Effektivnost' i neiropsikhologicheskie aspekty mnemicheskikh sposobnostei aktivnykh kiberigrokov [Effectiveness and neuropsychological aspects of mnemonic abilities of active cyberplayers]. *Vestnik Rossiiskogo Gumanitarnogo Nauchnogo Fonda, 3*, 176–184.

Elkonin, D. B. (1978). *Psikhologiya igry* [Game psychology]. Moscow: Pedagogika.

Fomicheva, Yu. V., Shmelev, A. G., & Burmistrov, I. V. (1991). Psikhologicheskie korrelyaty uvlechennosti komp'yuternymi igrami [Psychological correlates of fascination with computer games]. *Vestnik Moskovskogo Universiteta. Seriya 14. Psikhologiya, 3*, 27–39.

Fromberg, D. P. & Bergen, D. (Eds.). (1998). *Play from birth to twelve and beyond: contexts, perspectives, and meanings*. New York: Garland Publ.

Huizinga, J. (1955). *Homo Ludens: a study of the play-element in culture*. Boston: Beacon Press.

Ivanov, M. S. (2008). *Psikhologiya samorealizatsii lichnosti v komp'yuternoi igrovoi deyatel'nosti* [The psychology of self-actualization of personality in computer game activity]. Kemerovo: Kuzbassvuzizdat.

Kerdellant, Ch., & Gresillon, G. (2003). *Les Enfants-puce. Comment Internet et les jeux vidéo fabriquent les adultes de demain*. Paris: Denoël (in French).

Khrenov, N. A. (2005). *"Chelovek igrayushchii" v russkoi kul'ture* ["Playing man" in the Russian culture]. Saint Petersburg: Aleteiya.

Kornilova, T. V., & Tikhomirov, O. K. (1990). *Prinyatie intellektual'nykh reshenii v dialoge s komp'yuterom* [Intellectual decision-making in dialogue with computer]. Moscow: Moscow University Press.

Luzakov, A. A., & Omelchenko, N. V. (2012). Semantic space of computer games: the attempt of reconstruction. *Scientific Journal of KubSAU, 78*(04), 1–10. Retrieved from http://ej.kubagro.ru/2012/04/pdf/26.pdf

Millar, S. (1968). *The psychology of play.* Harmondsworth, Middlesex, England: Penguin Books.

Morozov, I. A., & Sleptsova, I. S. (2004). *Krug igry. Prazdnik i igra v zhizni severnorusskogo krest'yanina (XIX–XX vv.)* [Circle of play. Festivity and game in the life of the Northern Russian peasant (XIX–XX centuries)]. Moscow: Indrik.

Poddiakov, A. N., & Eliseenko, A. S. (2013). Relations between subjective uncertainty and performance in complex problem solving (based on the management of virtual factory). *Psikhologicheskie Issledovaniya, 6*(28), 4. Retrieved from http://psystudy.ru/index.php/eng/2013v6n28e/794-poddiakov28e.html

Rahner, H. (1965). *Man at play.* London: Burnes & Oates.

Shapkin, S. A. (1999). Komp'yuternaya igra: novaya oblast' psikhologicheskikh issledovanii [Computer game: New domain of psychological research]. *Psikhologicheskii Zhurnal, 20*(1), 86–102.

Shirky, C. (2010). *Cognitive surplus: creativity and generosity in a Connected age*. New York; London: Penguin Books.

Shmelev, A. G., Burmistrov, I. V., Zelichenko, A. I., & Pazhitnov, A. L. (1988). Mir popravimykh oshibok [The world of reparable mistakes]. *Vychislitel'naya Tekhnika i ee Primenenie. Komp'yuternye Igry, 3*, 16–84.

Tikhomirov, O. K., & Lysenko, E. E. (1988). Psikhologiya komp'yuternoi igry [The psychology of computer game]. In *Novye metody i sredstva obucheniya* [New methods and means of education] (Iss. 1, pp. 30–66). Moscow: Znanie.

Vasilyev, I. A. (2002). Strategicheskoe myshlenie v slozhnykh oblastyakh real'nosti [Strategic thinking in complex scopes of reality]. In B. S. Bratus, & D. A. Leontiev (Eds.), *Uchenye zapiski kafedry obshhej psihologii MG*U [Proceedings of the Moscow State University Department of General Psychology] (Iss. 1, pp. 102–118). Moscow: Smysl.

Voiskounsky, A. E. (2010a). *Psikhologiya i Internet* [Psychology and Internet]. Moscow: Akropol'.

Voiskounsky, A. E. (2010b). Do children addicted to computer games become more agressive? *Voprosy Psikhologii, 6*, 133–143.

Voiskounsky, A. E. (Ed.). (2009). *Internet-zavisimost': psikhologicheskaya priroda i dinamika razvitiya* [Internet-addiction: psychological nature and dynamics of development]. Moscow: Akropol'.

Voiskounsky, A. E., & Avetisova, A. A. (2009). Traditsionnye i sovremennye issledovaniya igrovogo povedeniya [Traditional and modern research of gaming behavior]. *Metodologiya i Istoriya Psikhologii, 4*(4), 82–94.

Voiskounsky, A. E., Mitina, O. V., & Avetisova, A. A. (2005). Communication and "flow experience" in Internet group role games. *Psikhologicheskii Zhurnal, 26*(5), 47–63.

Vorderer, P., & Bryant, J. (Eds.). (2006). *Playing video games: motives, responses, and consequences*. Mahwah, NJ: Lawrence Erlbaum.

Vygodskaya, G. L. (1996). Kakim on byl [The way he was]. *Voprosy Psikhologii, 5*, 122–134.

Wang, Sh., Voiskounsky, A., Mitina, O., & Karpukhina, A. (2011). Association of flow experience to psychological computer game dependency. *Psychology. Journal of the Higher School of Economics, 8*(4), 73–101.

К психологии компьютерной игры

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Резюме

Статья предваряет специальный выпуск журнала, посвященный исследованиям в области психологии компьютерных игр. Подчеркивается междисциплинарный характер исследований игровой деятельности на примере классических и современных этнографических, культурологических и психологических работ. Проводится мысль, согласно которой характерное для этнографической науки рассмотрение игры как развлечения и способа проведения свободного времени является доминирующим в исследовательской практике, в том числе психолого-педагогической, связанной с изучением игровой деятельности и психологических особенностей игроков в компьютерные игры. Рассматривается четвертьвековая история психологического изучения компьютерно-игровой деятельности в стране. Отмечаются такие направления проведенных исследований, как изучение личностных и когнитивных особенностей

игроков, их имплицитные представления, психологическая зависимость игроков. Вместе с тем фронт зарубежных исследований заметно шире, и некоторые направления таких работ в недостаточной степени представлены в отечественной научной литературе. Среди них – спорные вопросы об усилении (или отсутствии такого усиления) жестокости в зависимости от опыта игры в агрессивные компьютерные игры, а также о специфических особенностях протекания когнитивных процессов у игроков. Современные подходы к поиску решений, связанных с данными вопросами, раскрыты на аналитическом и эмпирическом уровне в статьях, составляющих спецвыпуск. В аналитической статье также обосновывается довод, согласно которому современные многопользовательские игры поддерживают не только игровую, но и коммуникативную деятельность и потому в определенной степени представляют собой нечто вроде «клуба по интересам».

Ключевые слова: игра, психология, этнография, компьютерная игра, развлечения, исторический анализ, когнитивные процессы, агрессивность, имплицитные знания, психологическая зависимость, культура.