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Balance and disbalance of subjectness in virtual space

Баланс та дисбаланс суб'єктності у віртуальному просторі

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Summary

The purpose of the article is to analyze the concept of balance and disbalance of subjectness.

Background. The rapid growth of the virtual space and its integration into everyday life pose challenges to the scientific community regarding the transformation of individual and group subjectness. The digital age creates both new opportunities for development and risks of limiting or losing subjectness potential, particularly in the context of hybrid and real wars and the integration of large language models (LLMs, AI).

Methods. Theoretical and methodological analysis of the problem. A systematic analysis of disbalances and disorders of subjectness in the virtual space was conducted, along with an examination of approaches to their prevention and correction.

Results. Studying disbalances and disorders of subjectness in virtual space is critically important for mental health in the digital age and in wartime conditions. Virtuality can simultaneously serve as a resource for realizing subjectness potential and as a threat to its loss, especially with the integration of AI. Definitions of “subjectness balance”, “subjectness disbalance”, and “subjectness disorder” were proposed. A broad spectrum of subjectness disbalances and disorders was systematized. It was determined that the virtual space becomes a resource for development if there is harmonious balancing, conscious management of online presence, and preservation of critical thinking. The proposed subjectness-centered approach to counseling opens new prospects for preventing and overcoming digital addictions and fostering personal development.

Conclusions. Maintaining a balance of subjectness is a key factor in personal success, effectiveness, and harmonious development in the digital world. A systematic approach to preventing and correcting subjectness disbalances requires the joint efforts of researchers, practicing psychologists, educators, IT specialists, as well as government and public administration. The virtual space can be a safe and resourceful environment for the development of subjectness if digital technologies are used consciously and in a balanced manner.

Keywords: subjectness, agency, balance, subjectness balance, subjectness disbalance, subjectness disorder, virtual space, psychological balance, balance theories, technologies.

Анотація

Мета статті – аналіз концепції балансу та дисбалансу суб’єктності.

Швидке зростання віртуального простору та його інтеграція у повсякденне життя ставлять перед науковою спільнотою виклики щодо трансформації індивідуальної та групової суб’єктності. Цифрова епоха створює як нові можливості для розвитку, так і ризики обмеження або

втрата суб'єктного потенціалу, особливо в умовах гібридних та реальних війн та інтеграції великих мовних моделей (LLM, ШІ).

Методи. Теоретико-методологічний аналіз проблеми. Було проведено системний аналіз дисбалансів та розладів суб'єктності у віртуальному просторі, а також вивчено підходи до їх профілактики та корекції.

Результати. Дослідження дисбалансів та розладів суб'єктності у віртуальному просторі є критично важливим для психічного здоров'я в цифрову епоху та в умовах війн. Віртуальність водночас є ресурсом для реалізації суб'єктного потенціалу та загрозою його втрати, особливо в зв'язку з інтеграцією ШІ. Запропоновано визначення «баланс суб'єктності», «дисбаланс суб'єктності», «розлад суб'єктності». Систематизовано широкий спектр дисбалансів та розладів суб'єктності. Визначено, що віртуальний простір стає ресурсом розвитку за умови гармонійного балансування, усвідомленого управління онлайн-присутністю та збереження критичного мислення. Запропонований суб'єктний підхід до консультування відкриває нові перспективи у профілактиці та подоланні цифрових залежностей та розвитку особистості.

Висновки. Підтримання балансу суб'єктності є ключовим фактором успішності, ефективності та гармонійного розвитку особистості у цифровому світі. Системний підхід до профілактики та корекції дисбалансів суб'єктності потребує спільних зусиль науковців, практикуючих психологів, педагогів, ІТ-фахівців, а також державного та громадського управління. Віртуальний простір може бути безпечним і ресурсним середовищем для розвитку суб'єктності за умови усвідомленого та збалансованого використання цифрових технологій.

Ключові слова: суб'єктність, агентність, баланс, баланс суб'єктності, дисбаланс суб'єктності, розлад суб'єктності, віртуальний простір, психологічний баланс, теорії балансу, технології.

Introduction

The rapid growth of the virtual space and its pervasive integration into the everyday life of modern individuals pose a range of highly relevant and multifaceted questions for the scientific community, particularly concerning the transformation of psychological subjectness and potential disbalances at both the individual and group levels. Until recently, the virtual sphere was primarily considered an auxiliary tool for communication or access to information; however, it has now become an essential, daily, and even defining part of life for many people. Its influence extends not only to behavioral and communicative aspects but also to the fundamental mechanisms of self-perception, identity, and holistic personal development.

The digital environment is increasingly intervening in the process of subject development, altering internal structures, self-conceptions, and individual developmental trajectories, and influencing the specifics of social behavior. This concerns not only changes in interaction channels or modes of subjectness activity realization but also a qualitative transformation of the very experience of subjectness. The virtual space can promote the unfolding of an individual's or group's inner potential and expand opportunities for self-realization, yet it can also act as a factor limiting or even undermining one's subjectness. The impact of the digital environment, the nature of interaction, and the level of individual awareness of one's role within it are crucial factors.

Particular attention is drawn to the problem of balancing psychological subjectness amid the widespread adoption and integration of advanced artificial intelligence technologies, including large language models (LLMs), which increasingly assume an active role in human interaction. In many cases, such AI systems act not only as tools but also as a "partner" in communication, shaping new activity scenarios and influencing individuals' perception of their own subjectness. This creates a potential risk of blurring the boundaries between

autonomous personal activity and algorithmically mediated actions. Additionally, user-specific adaptation features of AI (LLM) technologies create ideal conditions for dependency formation and manipulation. Recent studies indicate that AI can amplify users' thoughts during interaction, influence emotional states, and thereby have negative consequences for human subjectness: particularly in minors, emotionally unstable individuals, people with specific psychological characteristics, and other at-risk groups.

Consequently, there is an urgent need for a deep scientific understanding of the nature, manifestations, and long-term consequences of psychological subjectness disbalances in virtual space. The task is not only to describe and document risks but also to identify effective approaches for harmonizing virtual interactions and developing scientifically grounded methods for prevention and compensation of possible violations.

It is therefore extremely important to systematically study the influence of both emerging and established technologies on personal subjectness, paying attention to long-term effects on mental health, cognitive development, and resilience. Equally significant is the development of innovative approaches and practical technologies for maintaining subjectness balance during interaction with virtual environments. Such measures will not only minimize the risks of cyber-dependencies, including AI system dependency, but also promote conditions for harmonious personal development, preservation of integrity, and resilience amid rapid digital transformations and societal crises.

The purpose of the article is to analyze the concept of subjectness balance and disbalance.

Main research tasks:

1. To define the concepts of “subjectness balance”, “subjectness disbalance,” and “subjectness disorder”.
2. To identify the dimensions (polarities) along which subjectness is balanced.

3. To examine subjectness disbalances and disorders in virtual space.

Analysis of Recent Sources

Within approaches to psychological balance, concepts such as wisdom (prudence) (Smulson et al., 2013), cyber-wisdom (Polizzi & Harrison, 2022), equilibrium, psychological well-being, psychological stability, congruence, and resilience are frequently discussed. Most of these frameworks describe a process of self-balancing that leads from disharmony to harmony, ultimately resulting in balance (Price, 1962; Price, Harburg, & Newcomb, 1966; Sternberg, 1998; Tsyuman, Nagula, & Adamska, 2022). Among the most well-known balance models are Heider's Balance Theory, symmetry theory, and cognitive dissonance theory (Heider, 1946; Zajonc, 1960). More contemporary approaches to psychological balance, such as the Theory of Psychological Optimization, propose pathways for optimizing psychological well-being to achieve optimal productivity and quality of life (Rachmad, 2022). Cyber-balance and its restoration have been considered in the context of cyberbullying (Trolley & Hanel, 2010).

Research on subjectness, especially in virtual space, has been explored in the works of Smulson M.L. and Meshcheriakov D.S. A subject (real or virtual) is defined as an individual, community, or group demonstrating conscious activity guided by intellect. In other words, a subject possesses a representation of the world and serves as a bearer of a mental model of the world. Subjectness is a property of the individual (or group) representing a dynamic structural and functional organization of the subject, governed by specific activities and including intellectual capabilities, mental models, motivations, and other components (Smulson et al., 2021; 2023; 2024; Meshcheriakov, 2019, 2024b, 2025). Accordingly, the authors explore the discourse of the development of the concept of subjectness within the Ukrainian scientific school, its application features, and distinctions from agency (Smulson & Meshcheriakov, 2021). The importance of self-regulation of the subject during hybrid wars is also described

(Makarchuk et al., 2021). Issues of designing (Ditjuk, 2021) and developing subjectness during wartime (Zinchenko & Babatina, 2024), as well as its devaluation due to mental trauma and PTSD (Starkov, 2023), have been identified.

Subjectness in the context of artificial intelligence development has been analyzed in numerous studies, addressing issues related to the emergence of artificial subjects (Meshcheriakov, 2024a; Nazar, 2024), AI consciousness (Shevtsov, 2025), methodology for developing psychological chatbots (Panok et al., 2025), and AI agency (Ågerfalk, 2020; Floridi, 2025).

Many studies have focused on cyber-health issues (Caponnetto & Casu, 2022), cyberpsychological balance (McMahon & Aiken, 2015), cyber-disorders, and disorders associated with virtuality. These include concepts of various syndromes such as Cyber-Syndrome, Cybersickness, and Cyberchondria (McCauley & Sharkey, 1992; White & Horvitz, 2009; Shi et al., 2024; Harth et al., 2024), concerns regarding mental health in the context of cyber-disorders (Young et al., 1999), and consequences of cyber-relationships (Jaureguizar et al., 2023). The topic of parasocial relationships in virtual space also deserves attention (Naidionova et al., 2024).

It is emphasized that engagement in cyberspace, particularly in social media and online networks, requires self-regulation, motivation, and support (Ozimek & Förster, 2021; Rahaeie & Mataji, 2022), especially in the post-truth era, during cognitive wars (Marsili, 2023; Maksymenko & Nazar, 2024), hybrid wars, cyber-wars, informational wars, and full-scale wars (Jøsok et al., 2019; Whyte & Mazanec, 2023; Smulson et al., 2025).

Research Methods

A theoretical and methodological analysis of the problem was conducted. A systematic analysis of subjectness disbalances and disorders in virtual space was performed, along with a review of approaches to their prevention and correction.

Research Results

We argue that psychological balance, as well as cyberpsychological balance, is closely connected with the balance of subjectness.

Subjectness balance in virtual space is a multifaceted concept that encompasses various aspects of personality and social interaction. Subjectness implies the conscious choice of one's goals, the specific activities for achieving them, including behavior, as well as the deliberate search for both life and psychological balance. While subjectness balance is often perceived as a positive state, its actual value depends on context and perspective.

It is plausible that the phenomenon (effect) of subjectness balancing constitutes one of the core mechanisms of subjectness itself. Clearly, for subjectness to be effectively realized, its balance must remain dynamic. For every situation, goal, strategy, task, activity, or behavior, different components and mechanisms will be engaged in varying proportions and sequences, and the level of subject involvement will differ. Consequently, the more developed a person's subjectness and personality, the greater the number of elements and polarities that must be balanced.

Subjectness balance may be defined as the optimal state of the subject for realizing their own subjectness, resulting from harmony among different components (Meshcheriakov, 2019) and mechanisms of subjectness (Smulson, Meshcheriakov, Nazar, & Dityuk, 2023). Regarding cyberpsychological balance, it is the optimal, dynamic state of the subject characterized by harmony among various components and mechanisms of subjectness (e.g., conscious goal-setting, activity, behavior) during intentional self-realization in virtual space. This state enables individuals to consciously and effectively manage their online activity and maintain life and psychological balance in interactions with the digital environment, while avoiding addictions and remaining more resilient to the methods and consequences of various forms of

warfare, including informational warfare, as well as other manipulative influences.

The experience of virtual space introduces specific features into the balancing process. At first glance, the aspects (dimensions) of balancing appear as polarities; however, the structure is much more complex and dynamic. In any case, this aspect requires further research. Several such aspects, which demand the subject's conscious choice and timely shifting, can be identified:

1. Subjectness activity vs. reactivity. In virtual space, it is easy to become a passive consumer of content, which may lead to a loss of subjectness. Balancing active engagement (pursuing one's own interests, creating content, interaction) with passive response (following others' interests, passive consumption, conformity) helps preserve subjectness and manage time, energy, and health. Critical thinking, media literacy, and self-regulation are vital skills for effective subjectness.
2. Self-identification, identity, and authenticity. In virtual space, users can construct multiple self-images, adopt varied behaviors, and even generate discrepancies between their real and virtual selves, or between multiple virtual selves. Maintaining authenticity is essential for overall subjectness balance and personal integrity, to avoid psychological conflicts.
3. Self-development vs. stability. Continuous self-improvement is important, but equally significant is valuing what has already been achieved. This prevents dissatisfaction and stress and ensures necessary periods of rest.
4. Social interaction vs. isolation. Virtual platforms, messengers, and social networks facilitate a broad spectrum of social interactions, from maintaining relationships to creating new ones or promoting personal brands and ideas. Yet, they may also enable virtual self-isolation and avoidance of meaningful interaction.
5. Psychological comfort vs. discomfort. Virtual space may provide support or become a source of stress. It is crucial to establish acceptable

conditions for communication and self-expression. However, prolonged comfort can reduce “subjectness tone”.

6. Reality vs. unreality; value vs. non-value. Virtuality easily generates and disseminates imaginary constructs that, while meaningless for many, consume significant time and resources, dispersing subjectness.
7. Development vs. degradation. Virtual environments offer countless opportunities for learning and growth. Yet, the boundary between development and regression is often blurred, complicating recognition of one’s subjectness trajectory. Moreover, the positive or negative consequences of acquired knowledge or competencies cannot always be foreseen.
8. Individuality vs. conformity (fashion). Virtuality, like reality, is marked by shifting trends. Belonging to a community often requires adopting shared values and ideas, but this may erode individuality. The critical factor of subjectness lies in whether these choices are made consciously or conformally.
9. Rationality vs. consumerism (overconsumption). Balance must be struck between purposeful use of technology as a tool and compulsive, uncontrolled use that fosters dependence and harms life domains.
10. Confidentiality vs. publicity. Balancing privacy and protection of personal data with the voluntary or forced disclosure of information for social or professional engagement.
11. Focus (concentration) vs. multitasking (fragmentation). Balancing the ability to concentrate deeply on complex goals with the scattering of attention across multiple tasks.
12. Physical health (life in “reality”) vs. virtuality. Balancing time dedicated to physical activity, sleep, and health maintenance with sedentary screen time that harms physical and mental well-being.

13. Creativity vs. passive consumption. Using digital tools for productive subjectness activities (coding, writing, designing) must be balanced against passive scrolling or reactive regression.
14. Recreation vs. work. Balancing the use of virtuality for relaxation or escapism with its pragmatic, goal-oriented use for work, study, or development.
15. Long-term goals vs. instant gratification. Balancing investment in virtual activities aimed at meaningful future outcomes (study, projects) with the lure of immediate rewards (gaming, likes, scrolling).

In addition to the aspects mentioned above, which are often relevant to non-virtuality as well, there are technological dimensions related exclusively to virtuality: for example, the emergence of large language models (LLMs, AI), virtual reality (VR), and augmented reality (AR). These technologies open new possibilities for interaction in virtual space—between individuals and virtual personalities, between subjects and artificial subjects, between users and virtual assistants (and partners). Such technologies affect the subjectness of an individual in that, without sufficient mastery of them, the person is forced into the position of an object. For instance, chatbots may direct the flow of conversation, or even choose their topics, turning users into passive consumers. Moreover, certain combinations of technologies may result in situations where choice is significantly restricted or even absent. Clearly, this amounts to a kind of “delegation” of subjectness, at least until artificial subjects emerge. Therefore, it is important to know and account for how these technologies influence users’ subjectness and their ability to maintain balance (Meshcheriakov, 2024; Panok et al., 2025).

Based on the above, disbalance of subjectness can be defined as a state of the individual of varying intensity and nature, characterized by a disruption of harmony and coherence among the different components (such as self-awareness, self-regulation, activity, value-semantic sphere, responsibility, etc.)

and mechanisms of subjectness. This state is non-optimal and prevents or complicates the effective realization of one's own subjectness as the ability to be active, autonomous, and responsible in one's life and activity.

In other words, while balance represents the coordinated functioning of all components of subjectness, allowing a person to fully manifest themselves, disbalance reflects discord, inconsistency, or conflict among these components, which limits or distorts self-realization and the individual's effective functioning as a subject.

We may assume that a disorder of subjectness is a state of the individual or a mental process characterized by a persistent and significant disruption or disorganization in the functioning of the components and mechanisms of subjectness. Unlike temporary disbalance, a disorder of subjectness is more pronounced, may have a pathological character, and significantly restricts or makes impossible the effective realization of one's subjectness. It leads to marked difficulties in self-awareness, self-regulation, decision-making, acceptance of responsibility, and active interaction with the world (both real and virtual). Thus, a disorder of subjectness may be considered a profound form of disbalance that requires attention and possibly professional psychological support. It is not merely a temporary oscillation of equilibrium but rather a deeper deformation of the individual's inner organization as a subject. Questions related to disorders of subjectness often arise in connection with post-traumatic states.

Below are examples of disbalances and disorders of subjectness in virtual space:

- Alienation from corporeality. Excessive focus on the virtual body (avatar) or neglect of physical needs during prolonged online presence may lead to alienation from one's physical embodiment, normally an integral part of subjectness.
- Simulated subjectness and parasocial relationships. Life in virtual spaces (metaverse, VR games, role-playing communities) can cause individuals

to “live” in simulations, perceiving themselves primarily through fictional scenarios, losing connection with real contexts.

- Virtual (digital) incongruence. A mismatch between virtual self-presentation and real self-perception. For instance, creating an idealized online image different from one’s real self may lead to internal conflict and low self-esteem offline. In light of potential AI agents, the reverse incongruence is also possible in the future, where the real self diverges from the digital one, causing discomfort.
- Pseudo-subjectness. The illusion of active and autonomous subjectness in virtual space, which is actually just a reaction to algorithms or audience expectations (or is itself algorithm-driven). Example: the “freedom” of content choice that is, in fact, limited by recommendation systems and filter bubbles.
- Disintegration (fragmentation) of subjectness. A deeper disruption of the integrity of subjectness, characterized by splitting or loss of connection between its components. In virtual space, disintegration may be reinforced by multiple unconnected identities (nicknames, avatars, behavioral models) across platforms, without integration into a unified “self”.
- Dissociative subjectness. Impairment of the integration of consciousness, memory, identity, emotions, perception, behavior, and sense of self. In virtual space, this may manifest as detachment between real and virtual experience, or a sense of unreality.
- Multiple subjectness. Development of alternative personalities in virtual worlds (e.g., role-playing games) that form distinct virtual subjects with their own histories and traits, not integrated into the real self.
- Proxy subjectness. Transfer of a substantial part of one’s activity to “digital representatives” (chatbots, automated posting services, virtual doubles), resulting in minimal personal involvement.

- Transitive subjectness. A tendency to constantly “flow” between digital roles without stable anchoring in a particular aspect of self (e.g., blogger today, commentator tomorrow, anonymous critic the next day).
- Delegated subjectness. Transfer of certain subject functions or decision-making authority to another entity, be it other users or technologies (algorithms, AI).
- Deficit of subjectness. A state characterized by reduced or absent manifestation of an active, autonomous, responsible position, including goal-setting and goal-achievement. In virtuality, this may manifest as over-reactivity to content, lack of initiative, reliance on algorithmic “filter bubbles,” and predominantly consumer behavior.
- Hypersubjectness. An excessively pronounced, intensive, or pathological form of subjectness, characterized by hypertrophied striving for activity, control, dominance, and assertion of one’s will, often disregarding others’ positions. In virtual space, this is linked to aggressive self-assertion, trolling, and cyberbullying.
- Regression of subjectness. Loss of previously acquired qualities and functions of subjectness, returning to simpler reactive forms of behavior. In virtuality, this includes diminished critical thinking, impaired self-regulation and planning, reduced initiative in real life, and passive online presence.
- Subjectness dependence (including co-dependence in virtual contexts). A state where the realization of subjectness is excessively dependent on other subjects (their evaluations, approval, or presence). In virtual space, this extends to dependence on the influence and goals of users, groups, or virtual figures: for example, a constant need for likes, followers, or identification with influencers.

In this context, though not necessarily a disorder, subjectness projection is of interest as a psychological mechanism of unconscious attribution of one’s own subjectness traits (e.g., independence, uniqueness, maturity) to others, to

objects, or to situations in real or virtual worlds. For example, a person with a deficit of autonomy may perceive others as overly dependent or project their own drive for uniqueness onto virtual characters.

These disbalances and disorders of subjectness in virtual space are often interrelated and may reinforce each other. Studying them is a crucial step toward developing effective strategies for supporting mental health and promoting the harmonious development of personality amid rapid digitalization, social upheavals, and uncertainty, especially during wartime.

In our view, a subjectness-based approach to psychological counseling and coaching, through subjectness balancing, but not limited to it, may be effective both in psychological support and in personal development. It can help address problems of digital dependence and disorders of subjectness. Its key task is the restoration and development of integral, autonomous, and responsible subjectness, often disrupted under the influence of virtual environments. In this context, the development and maintenance of subjectness balance, harmonization of subjectness, are of utmost importance, enabling avoidance of both deficit or regression, and hypersubjectness or other disbalances. At the same time, such use of the subjectness approach requires further refinement and research.

Conclusions

The study of disbalances and disorders of individual (and group) subjectness in virtual space is critically important for understanding the challenges that the digital age poses to the sustainable development of subjectness, as well as to human mental health and societal well-being. A systemic analysis of this problem and the development of effective methods of prevention and correction are essential for maintaining the integrity and harmonious development of subjectness in the conditions of hybrid reality, where the boundaries between physical and virtual worlds are increasingly blurred, and this against the backdrop of hybrid and real wars. Addressing these challenges requires joint efforts of researchers, practicing psychologists, educators, IT

specialists, as well as governmental and civic governance. Virtual space has already become an integral part of life, shaping the characteristics of subjectness and social interaction. It simultaneously provides opportunities for realizing subject potential and creates risks of its limitation or even loss. With the integration of large language models (LLMs, AI), the study of their impact on subjectness and the development of innovative approaches to maintaining their balance becomes especially urgent. The balance of subjectness includes the conscious choice of goals and activities, leading to an optimal state for realizing subjectness and, in turn, to psychological balance. Maintaining this balance emerges as one of the key factors of personal success and effectiveness, as well as a necessary condition for harmonious development and preservation of mental health in the modern digital world. This study systematized and proposed a broad spectrum of possible disbalances and disorders of subjectness in virtual space. At the same time, virtual space is not unambiguously destructive. It can serve both as a threat to subjectness and as a resource for its development, provided there is harmonious balancing, conscious management of one's online presence, integration of digital experience with real life, preservation of corporeality, and critical thinking.

A subjectness-based approach to psychological counseling, coaching, and educational practice opens new perspectives for the prevention and overcoming of digital dependencies and disorders of subjectness. Of particular importance is the methodology of subjectness balancing, which involves identifying, becoming aware of, and restoring harmony among the different components of subjectness.

Future research perspectives include the study of disbalances and disorders of subjectness, as well as technologies for their prevention and balancing. The interrelation of such individual disbalances with various social phenomena and collective subjectness also merits further examination. Moreover, the subjectness approach requires in-depth exploration both in the context of subjectness development and in the prevention and overcoming of dependencies, including digital ones.

Conflict of Interest

The author declares no conflict of interest.

Artificial Intelligence Involvement

GPT-5 mini and Gemini AI 2.5 were used for information retrieval, translation, and formatting of the reference list.

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