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GEOMETRICAL APPROACH TO ENACTIVISM

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Abstract. It was expected that modern enactivism would encounter the number of issues, most of part of which resulted from gradual separation from Varela's neurophenomenology policies. Despite all importance / significance of 4E-approach (extended, embedded, embodied and/or enacted mind) for cognitive sciences, we still fail to extend the constitutional base of perception within its framework. In search of the most fundamental level of enactivism and creation of a "neutral field of play" for all the intentionality naturalization "star players", we are forced to return to Husserl's phenomenology again. Let us focus on Husserl's methodological interest in geometry's cognitive potential. In his "Origin of Geometry" Husserl underlined the connection between human capacity for reactivation and living reactivability of geometry (Husserl 1996: 166). Furthermore, it is geometry that is responsible for naturalization of the psychic sphere (Husserl 1996:33). Following Husserl, we admit that geometry of intentional forms, or "intentional geometry" can be a foundation for all our epistemic practices. A thought cannot think itself, but geometrically an intention can be expressed both physically (body motions, deformation, metaphysis) and mentally (geometrical primitive forms of consciousness). The offered research is not a new radical theory manifesto, but testing the "intentional geometry" field of opportunities.

We intentionally do not engage into controversy against any aspect of cognitive science. We offer self-sustainable phenomenology of intentional system that would become an extension of Varela's principle of mutual methodological limitations in phenomenology and neurobiology. It is a successful attempt to change epistemic and metaphysical structure of the embedded mind, having restated a problem of enactiveness by means of reactivability of the intentional geometry forms. A dynamic model of the intentional knot is suggested to be a cognitive basis of unification. On the basis of the philosophy of the geometrical embodiment of intention a new question on intentionality naturalization is raised, and also gender diversities and peculiarities of mental functioning are discussed.

Key words: neurophenomenology, enactivism, invariant, intentional geometry, phenomenology, intentional knot, philosophy of mind, consciousness, naturalization of intentionality

ГЕОМЕТРИЧНИЙ ПІДХІД ДО ЕНАКТИВІЗМУ

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Анотація. Розробка ранньої методологічної програми феноменології Гусерля була зумовлена якісними успіхами у геометричних дослідженнях порубіжжя XIX-XX століть. Відповідно можна очікувати, що через сто років недаліки вже сучасного проекту «нейрофеноменології» Франсіско Варели можуть бути виправлені і пояснені в межах геометричного підходу до енактивізму. Мета запропонованої статті – лише окреслити інструментальний, а можливо, навіть і теоретичний фундамент майбутнього геометричного синтезу когнітивних дисциплін. В якості вихідного базису уніфікації автором запропонована інструментальна мова інтенціональної геометрії і модель інтенціонального вузла. Саме через мову геометричного втілення інтенцій відкриваються нові перспективи для антіраселовського проекту натуралізованої феноменології, особливо щодо так і невирішеної колізії з натуралізації інтенціональності. На основі запропонованих автором подолень ставляться по-новому проблеми гендерних відмінностей та питання функціонування людського мозку.

Ключові слова: нейрофеноменологія, енактивізм, інваріант, інтенціональна геометрія, феноменологія, інтенціональний вузол, філософія свідомості, натуралізація інтенціональності

Introduction. Quarter of a century has passed since the time of pioneer manifesto of enactivism, though attempts to naturalize intentionality within the manifested neurophenomenology still endure. Having taken the best of the E. Husserl and M. Merleau-Ponty's methodological program, Ja. von Uexküll's biosemiotics, K. Lorenz' evolutionary epistemology, J. Gibson's ecological approach to perception, F. Varela, E. Thompson and E. Rosch's "embodied mind" radically connected biology and neuroscience within the frame of cognitive research. The power and potential of paradox-

ical scientific synthesis turned out to be so challenging that nowadays the enactivist discourse domination stuns at the cognitive sciences conferences to some extent. In opposition to representationism and connectionism, the idea of "embodiment of consciousness" incorporates various flagman researches in the field of cognitive psychology and philosophy of consciousness as mosaic fragments. Program manifestos by Francisco Varela (1991), Alva Noë (2004), Evan Thompson (2007), Hanna Di Jaegher and Ezequiel Di Paolo (2007) confidently keep taking off hardness of "a hard problem of consciousness." Herewith, the phenomenal qualities (qualia), though with some flaws, still can be explained by the theories of "emotional mind" and affective science (Colombetti 2014, Hufendiek 2016). The inter-subjectivity nature, explained by crossdisciplines, makes a solid foundation of enactivism in the shape of "embodied schemes" (Gallagher 2005), "mirror neurons" (Rizzolatti 2008, Iacoboni 2008), "extended body" (Froese, Fuchs 2012), "interactive brain" concepts (Di Paolo, Di Jaegher 2012).

Despite numerous assumptions and opportunities, according to our reckoning,

a new trend of cognitive research still fails to naturalize intentionality. Meanwhile, many philosophers, anthropologists, linguists, biologists are making steps in the right direction, and it seems that the clarity of representation is "with the point of their pens." Such developments are mainly caused by absence of a common instrumental language, general rules of the phenomenology naturalization process representation. Eventually, there is still Hesse's "Glass Bead Game" – "a game with all meanings and values of culture", the rules of which we can only guess or constantly discuss at the international conferences and symposiums. The very phenomenon, human cognition, plays the "glass beads" role.

In order not to backtrack from the classic principles of neurophenomenology, we will turn to the late Husserlian methodology. Late in life Husserl underlined special connection between living reactivatability of geometry and the nature of human cognition. Moreover, the phenomenology method developed by Husserl was predetermined by success in geometric research in many ways at the turn of XX century. We can expect that in a hundred years neurophenomenology flaws would be also corrected by a new geometric approach to enactivism and intentionality naturalization.

Cognitive science inherited this problem from analytic philosophy and phenomenology on its way to creation of a specific anti-Russel's project of the naturalized phenomenology within which the intentionality appeared to be a convergence point of two seemingly absolutely incompatible traditions. Bitter dispute of the end of XX century was replaced by gradual conflict resolution in the first quarter of XXI century, and the attempts to create a "neutral

game field" for all "star players" in the intentionality naturalization start taking place [Haugeland, 1990; Hutto, Satne, 2013]. Despite numerous prerequisites and opportunities (Noë 2004, Millikan 2004; Hutto, Myin 2013, 2017), it seems that enactivism still fails to naturalize intentionality.

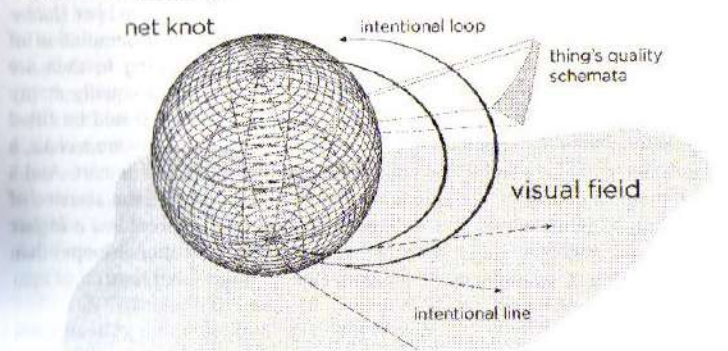
The goal of the article is to outline a basic foundation for the future geometric synthesis of cognitive studies. Within the article we attempt not to confront various existing approaches. It is another attempt to offer a self-sustainable hypothetical model of the intentional system, an attempt to form its language that would enable conflict resolution between opposite philosophical views on the human cognitive nature. As a unification baseline we offer an intentional knot model and intentional geometry language. In reliance on the geometrical embodiment language new issues of intentionality naturalization raise. Intentional geometry language development will become an important condition for the 4E approach.

It is generally known that the problems of intentionality, being at the heart of modern discussions in the field of consciousness philosophy and cognitive sciences, received wide coverage in the Middle Ages. Thomas Aquinas, reflecting over the intentionality nature, defined the following cognitive criterion. The difference between the cognizant and non-cognizant is that that the non-cognizant have nothing but their own form alone, whereas a cognizant entity is suited to have the form of another entity (Perler 2016: 91). With assistance of M. Merleau-Ponty this cognitive criterion of mind obtains physical embodiment. As a body is visible and moving, it can see and move itself, forms a sphere of other things around itself, the things are now inlaid in my flesh, form a part of its complete definition, and the whole world has been shaped from the same material with it (Merleau-Ponty 1992:15). Further E. Thompson perfectly summarizes the phenomenological Merleau-Ponty program and makes a concept of "the form", as well as a process of absorption of other forms, an exclusive key for naturalization of phenomenology within the cognitive sciences (Thompson 2007). At the same time, the mind, according to Thompson, is "a dynamic singularity" - a knot or clew of recurrent and reversible processes focused on the body (Thompson 2005). Summarizing the propositional attitudes offered above, the embodiment of a living body in the first model approach can be provided as a spherical *intentional knot* constantly complicating its intentional structure due to inclusion of other intentional forms (see fig. 1). Meanwhile, the language of geometrical forms of 1, 2... n - orders projected on the sphere becomes the literal tool allowing formal naturalization of intentionality. It is not clear yet if it would be a language of the imaginary Lobachevsky's geometry or, for example, 11-dimensional Calabi-Yau space that conceals additional dimensions. As both mentioned candidates are

beyond the human understanding. Intentional knot representation language may be conventionally called a language of the intentional geometry. A thought cannot think itself, but the intention, intentionality, on the contrary, can be geometrically expressed. In particular, our choice may become an answer to recent criticism on Husserl and Merleau-Ponty's ideas regarding the possibility of "living body of a language" as the embodied geometry (Haldwin 2013). We shall compare the positioned approximate model with program attitudes of phenomenology and neurophenomenology. We will also check its self-sustainability.

1. Intentional knot and physics of stoics. Modern trends of cognitive science and philosophy of consciousness – holism, dynamism, proceduralism, emergence, autopoiesis, effectiveness, naturalism, - actually have existed for over two thousand years. They repeat embodied representations of early Greek stoics about πνεῦμα (pneumatic continuum). Πνεῦμα means a living "smart body", which has a spherical shape and "pulses" in the emptiness. The difference between the inorganic and organic depends on combination of πνεῦμα, at the same time a human soul is built into the space order and in many respects duplicates it. The Everything-in-Everything principle is affirmed.

As a result, for stoics a human as well as cosmos, is a self-sufficient dynamically closed embodied system (σὸστημα), in which there is a change of structural conditions – from structural to functional and vice versa. And the structure (ἔξις) is the very mind allocated within the whole body (Stepanova 2005:55). Today the stoic idea of a living system corresponds to the program attitudes of neurophenomenology and enactivism in many respects. Moreover, the ancient πνεῦμα doctrine, thoroughly developed by Greeks, nowadays can help to clarify many problematic aspects related to naturalization of intentionality.



“First person” and “third person” perspective. The synchronic structure transformation into a diachronic one is a topical issue of perceptual intentionality. It is the one that generates belief in the outer reality (Petitot, 1999:370). But initially, it causes no problem for stoics’ pneumatic continuum. “Why?” becomes a relevant question. The matter is that the functional properties of πνεῦμα are tension (τόνος) and “comprehending” of specific qualities of things (φαντασία καταληπτική). Tonic movement is followed by two configurations of intentions: diachronic “rolling out” movement (intentional right line) and synchronic “rolling in” (intentional loop). Therefore, “pulsation” appears: physical embodiment of rest and movement in the same singular system. This is how two cognitive worlds function in the same body. The world is open, rolling out in time and dimension: when specific qualities and quantity of things of the visible field are passively “comprehended”. And the world rolling in, when πνεῦμα returns back to itself actively recreating the unity and substantiality by itself timelessly (Stepanova 2005: 58). Expressing the ideas of stoics, the “third person” perspective is an open inter-subjective world, and the “the first person” perspective is a self-referential and autopoietic world of self-actualization.

Practical importance. Inclusion of stoical physics ideas into neurophenomenology only strengthens the potential of enactive approach. Due to presence of two intentionally different worlds in the single living system, it would be interesting to have a new look at the phenomenon of cognitive dissonance and methods of its reduction. On the other hand, biological differences of male and female behavior (Zhukov 2007) can be represented by means of the intentional geometry terms. It is known that major male intentions are directed outward, to the world cognition (*intentional line*). They are intellectual rigidity, high sociality, sense of humor, weak verbal skills and intuitivism. Meanwhile a woman recreates her world around her (*intentional loop*); the recurrence of vital activity, tendency to accumulation of resources, better adaptability, less genetic variety comparing to men are typical for her. For example, if to settle a guy and a girl in equally empty rooms in a dormitory, soon the space around male student would be filled differently from the female student. Necessary things for a guy are a chair, a table, a computer, a frying pan and that’s quite sufficient for his start. And a girl requires doormats, curtains, a table cloth, a dish set, and the absence of a wardrobe is nonsense. The biology of female behavior contains a higher degree of egocentric focus of the world around her (intentional loops) than the male cognition of the world contains egoism (intentional lines).

2. Intentional configurations. Intentional knot intentionally forms its own ecological and cognitive niche, structures a living space without representing objects of its environment, and temporarily covers them in the form of quality structures. Then the intentional quality forms become drawn in, join into the knot body, intentionally making it more complex and, at the same time, extending the area of cognitive organization. But how to understand intentional configurations? In order to represent the simplest primitive of the intentional form or structural quality scheme we may take five antique elements, represented in the antique cosmology in the shape of five Platonic solids’ patterns – octahedron, tetrahedron, cube, dodecahedron and icosahedron (see fig. 2). Probably the elements’ (fire, air, water, earth) qual-

Intentional forms of five elements (platonic solids, στοιχεῖον)



Fig. 2

ity intensification takes place on these intentional lines when they hit the field of embodied mind perception. There is intentional power of quality forms. It is amazing but it is worthy noting that physically embodied mind is also capable to perceive quality intensification of the fifth element, so called aether. It is difficult to presuppose the developments.

Apart from trivial cases, our thought can be demonstrated by more impressive examples from the history of mathematics. Surely, we are talking about the outstanding “Lectures on the Icosahedron” by Felix Klein, in which he proved that each unique mathematical object is somehow connected to the properties of icosahedron (see fig. 3). That is to say that the intentional form of icosahedron develops intentional branches of five mathematical theories – geometry, Galois theory, the theory of groups, differential equations and the theory of invariants (Klein 1989). It is interesting that Klein initially stayed within the sphere surface and considered its multi-layered cover via projecting the verges and edges of “Platonic solids” and dihedron (polyhedron of zero volume) on its surface. In addition, we should mention that icosahedron-shape crystals do not exist but the living forms do. All these facts prove our choice and coherence of the intentional knot concept to be correct.

3. Intentionality nature. Currently two research programs of the intentionality understanding have been developed. Since the 70th of the last

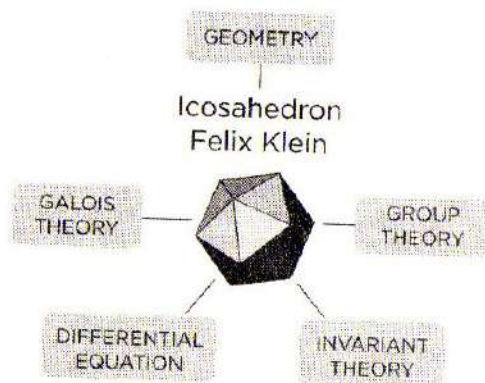


fig.3

century the intentionality naturalization program has been dominated (Naturalist-Externalist Research Program, NERP): to explain the intentionality by means of physical terms, to find natural relation between the world content and the mental content (F. Dretske, R. Millikan, J. Fodor). Distinctions between NERP theories contained only different interpretations of the natural relation and relation to qualia, irreducible mental conditions (eliminativism by P. Churchland, biological naturalism by J. Searl, instrumentalism by D. Dennett, etc.). The project of neurophenomenology and enactivism also traces its origin in NERP in large measure. Due to failures of naturalization of intentionality the Phenomenal Intentionality Research Program (RIRP) has been recently enhanced. The main focus, both in weak (weak-PIT) and in strong (strong-PIT) phenomenal intentionality theories is on fundamental irreducibility of intentionality phenomenon to any natural or physical of the world manifestations (Searle 1991, 1992, Loar 1995, Horgan and Tienson 2002, Kriegel 2013). In terms of rather significant inconsistencies in programs Searle's opinion appears to be advantageous as he thoroughly developed an hierarchy of intentionalities, which is disputable but remains to be a shaky bridge between absolutely opposite program attitudes. Therefore, to our opinion, a step in the right direction would be enhancement in classification of the intentionality structures and forms and developing a classification that would reduce variety of theoretical ideas on the intentionality nature in a new way.

To a certain degree the problem arises from poorness of European languages while expressing shades of meaning of intention and, therefore,

intentionality. In order to overcome this gap, we need, firstly, to enrich the intentionality concept address to the Indo-European linguistic family. For example, in Persian a word "intention" has five autonomous meaning concepts. The better we understand Eastern cultures, the more nuances in the naturalistic and phenomenal understanding of the intentionality we will reveal. Secondly, back in the Middle Ages they offered philosophical models of the cognitive direction puzzle solution. Therefore, Franz Brentano's hermeneutic mediation is not sufficient at all. And there relates not only Thomas Aquinas' teaching. We can add also epistemological realism of Petrus Joannis Olivi, William of Ockham, Adam Woodham and productive intelligence of Dietrich von Freiberg (Perler 2004). Thus, for the intentional knot model positioned hereby, the treatise on geometrization of "linear" and "embodied" qualities represented by the medieval nominalist Nicolas Oresme attracts special attention.

Table 1. Intention Concept Etymology, Farsi

عزم (azm)	قصد (gasd)	نیت (niyat)	خیال (khiyal)
Intention as a firm decision	Intention as purposeful motivation	Thought, pushing to action	Pushing to action through imagination

Having introduced the concepts of quality intensity, width, length, Oresme offers sixty-seven possible intentional configurations for qualities of things and their modifications (Oresme 2000). Also, the nominalistic models of the past are actual since there are current attempts to schematize Husserlian descriptive eidetic mathematically on the basis of the "quality → extension" law (Petitot 1999). We consider that intentional geometry axiomatic development will help us approach a general intentional transition basis between autonomous dimensions of the intentional knot: between the connective, representative, naturalistic and phenomenal ones.

However, what is an intentional point in all four representations? A line, a curve, a surface of 1, 2, 3, 4 – order? Whether two parallel intentions cross at two embedded and embodied consciousnesses? Indeed, while sharing the ideas we leave them in the consciousness of each conversation participant. What is general intentional geometry of inter-subjectivity? Intentional geometry of emotions, affective conditions? Probably it is a general discourse base for biologists, epistemologists, philosophers, mathematicians, physicists, psychologists; general rules for all representatives of cognitive research.

4. Husserlian phenomenology and intentional geometry. Formation of phenomenology as a methodological program occurred due to the

innovative breakthroughs in the field of geometrical research at the turn of XIX-XX centuries (Hatimo 2008). Husserl was actively interested in non-Euclidean geometries by Riemann and Lobachevsky, admired the "doctrine of extension" by Grassmann, complex numbers. In the latest works published after his death the phenomenologist noted the importance of geometrical live reactivity within generation of the living world meanings and specified its inter-subject invariance (Husserl 1996:224, 243). Still facing contradictions, Husserl failed to go beyond his own assumptions – he considered that development of mathematical descriptive eidetics had been conceptually impossible. As we can see now, the situation is not that hopeless. The attempts of Husserlian eidetics naturalization have been performed in the field of neurophenomenology within the framework of morphodynamic functionalism (Petitot, 1999). The mathematician Jean Petitot used complex concepts of differential geometry (stratification, calculus of variations, singularity, smooth variety) and showed that it is possible mathematically, though with some limitations, both in Husserlian methodology and neurophenomenology. Phenomenology of perception is represented in the form of the formula: embodiment = sensible schemes of qualities + extension in the space. Further, there are given quite close analogies between the pre-phenomenal physical order and the "smooth variety" concept, the eidetic "quality → extent" law and the "space stratification" concept. Pre-phenomenal continuum is marked by its self-similarity and large-scale invariance. Kinesthetic direction (motivation) shall be considered as transformation of invariants taken from the flow of qualities, and the intentionality phenomenon – with the point tracking and "agglutination" of isomorphisms. Eventually, phenomenology naturalization shall be assigned to the problem of implementation of effective algorithms of these images (Petitot, 1999: 371). Despite of all advantages of this approach, to our opinion, it has a significant disadvantage – a language of set-theoretical imaging. The language of set theory is inherently contradictory, and its benefits may turn into very significant gaps in case of intentionality naturalization while concealing the nature of mathematical matters. Having supported the program attitude of R. Tieszen (Tieszen 2005) we offer not to avoid the Erlangen program by Felix Klein and consider intentionality as finding invariants within various group transformations and formulation of various geometries. Constitution of daily perception space in many respects depends on a body orientation and physical kinesthetic systems. Therefore, the geometrical invariants obtained via free transformations cannot be nullified by any future sensual experience. Each type of geometry sets its own ontology and has different invariants. Nevertheless, upon transition from one type of geometry to another, the hierarchical system of invariants forms geometrical

essence of intentions. In the field of topology the invariants are connectivity, compactness, for projective geometry they represent the relation of three points located on the same line, for projective – a form, for Euclidean – value and a form. In fact, there is a variety of invariants, sometimes they are difficult for understanding, however, we consider that the intentional knot model is potentially capable to incorporate and reactivate geometrical ontologies of any complexity.

5. Application.

"Waste" mental experiment. Within continuous reproduction of a body as integrality the role of mind can be argued. We will try to prove this statement proceeding from the concept of "emotional embodiment of mind" (Hufendiek 2016) and the theory of invariants. Let's remind the principle of autopoiesis. A human body as a unified network of components within its living space constitutes the boundaries of these networks as components that participate in the network realization (Maturana 1981: 21). Anyway, worldwide continuous replication of the network components, in other words, the group transformations of varieties, shall lead to appearance of biological components that would remain invariant/steady in case of various body transformations / adaptations in the environment. These affects, emotional conditions capture our body but they are production waste of autopoiesis. Autopoietic organization is connected to topological invariants (compactness, connectivity), and expansion of emotional experiences and homeostasis are embodied in the intentional knot invariants of another level. Mathematics helps us to understand that fundamental properties of the knot can be expressed by a number, polynomial, group, isotopy, homology. They conceal the nature of stability that keeps the internal environment permanency. Transition from autopoiesis to homeostasis equals to transition from complex geometry to a less complex one being a particular case of the first one. In case a body is not capable of self-reproduction, then it will not be able to maintain the internal environment permanency, but permanency does not lead to self-reproduction. From autopoiesis to homeostasis, and not vice versa. Affective conditions can be "felt" as they are less engaged in constituting of the network boundaries, and are more involved into recursive self-transformation / self-recognition in the network. Here occurs the illusion of one's emotions and feelings' control though it is just "production waste" of autopoiesis. Empathic reproduction of "waste" leads to emergence of affective invariant structures of even lower level that participate only in checkup of a whole-body condition. The invariant that describes them is a concept of amount, calculability. Appearance of these absolutely apathetic components is close to the concept of mind, of a rational thought imaging. Actually, burning out of emotional reactions, emotional conditions

takes place. Within the infinite cycles of empathic exhaustion appears ultimate intentional invariant – the mind, which, from the biological organization point of view, remains to be “waste-over-the waste”. Dynamically equilibrium condition of the concurrent “regress lines” of the network unity also forms a consciousness phenomenon. Further reproduction and distribution of apathetic structures causes appearance of empathic emptiness – and then cells totally terminate reproduction of the integrality – autopoietic, affective and reasonable, but nevertheless, being not deprived of intentionality, they continue their living and perform self-reproduction in a different way (oncology). It appears that the brain has been defined by evolution as a place of the greatest concentration of these invariant structures, exactly here locates semblance of the body, organism control and management. The question comes up if a human evolves? Or maybe the mind is biological “waste” genetically turned by the mankind into an advantage of the kind?

Mach principle (cognitive interpretation of thought economy principle). After formation of the cognition theory as a biological science it is generally accepted that variations in the embodied organization of living beings define differences in the world cognition capabilities (Knjazeva 2014: 90). Nevertheless, speaking of the dynamic and self-arranging system, the psychosomatic connections of which are based on the principle of nonlinear cyclic causality, forces to consider intentionality also as a biological product. Embodied intentions perform time-spacing of visible area elements. As any system in the nature aims to reach the minimum of potential energy, then for the “embodied mind” it shall be expressed by Mach’s principle of the “thought economy.” Within the gravity field the process of autopoiesis of the intentional system would not be an exception. It’s energetically beneficial to reduce the enacted space to the center, to turn in, squeeze the environment of the physical “enacted” consciousness to the simple and available *here and now*. Thus, we assume that absorption of intentional ecological niches shall lead to their egocentric “loopback”, i.e. to twisting, turning in of embodied intentions. Therefore, the “thought economy” principle completely corresponds to our choice of the benefit of spherical topology of the intentional configuration.

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МОЖЛИВОСТІ ПРИКЛАДНОЇ ЕТИКИ ЯК РЕСУРСУ В СФЕРІ ГУМАНІТАРНИХ ТЕХНОЛОГІЙ

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У даній статті досліджується потенціал прикладної етики як ресурсу в розв'язанні моральних дилем і конфліктів в сфері гуманітарних технологій. Гуманітарні технології трактуються як комплекс методів управління соціальними комунікаціями, взаємодією між людьми через спільне розуміння певних смислів її асоційованість з певними цінностями, та спеціальних технік і прийомів опосередкованого впливу на соціальну поведінку.

Прикладна етика орієнтована на отримання певного теоретичного знання, яке виступає основою етичної експертизи сучасних гуманітарних технологій, створює можливість зростання їх впливу як на розвиток особистості, так і протистояння маніпулятивним викривленням ціннісних орієнтацій. Ця форма діяльності етики, поворот її до конкретно-практичних проблем сучасності стало яскравим явищем кінця двадцятого століття.

Причини виникнення самих різних етик вбачають в стрімкому рості людських знань і технологічних можливостей, в багатьох глобальних проблемах (розподіл світових ресурсів, їжі та сировини, зростання народонаселення, реальна можливість глобальних катастроф) та необхідності підвищення якості внутрішньої саморегуляції людей, діяльність яких спрямована на подолання цих викликів.

Правила і цінності, що в різних формулюваннях є присутніми в кодексах поведінки організацій, лише в разі їх практичного втілення створюють справу честі, престижу, репутації організації. В цих процесах моральність як компонент соціальної організації (на мікро-, мезо- і макрорівнях) набуває все більшого значення в повсякденному соціально-діловому житті економічно розвинутих країн. Тим самим, люди природним чином прагнуть до задоволення більш високих потреб, коли задоволені прості, і більш схильні повсякчасно враховувати суспільний інтерес, де слідування йому допомагає досягненню власних цілей.

Робиться висновок, що використання прикладної етики в сфері гуманітарних технологій актуалізує необхідність соціального проєк-