Affective Tales of the Body: Narrative and Narrativity in Biological Art

“After years of poststructuralist counteroffensive, humanities research still – perpetually and helplessly – falls into the trap of more or less syntagmatic models, where structure is still strong”, writes Roma Sendyka. Even though the scholar writes about general tendencies in the humanities, one can attempt to contemplate her thoughts primarily in the context of narrative studies, which in their classical variant (e.g., Genette, Todorov, Barthes) were established upon the categorisation of narrative structures, or more specifically: linguistic, code-based structures. Despite clear attempts, articulated, for instance, by one of the most important representatives of cognitive narratology, Marie-Laure Ryan, one cannot help but concede that the language focus remains a dominant force in this particular area of research. Obviously, this diagnosis does not mean that the post-classical turn in the approach to narrative did not change the position held by the focus on structure, or that the hegemonic conviction that narrativity is realized through certain textual structures has been abolished. However, one can doubt whether in the post-classical understanding of narrative that emerges from the achievements of the poststructuralists, structure has been forgotten or if it simply changed its place, and representation still remains the basis of the narrative studies. No longer just a textual representation, yet it still uses signs, and because of that, discourse analysis/studies remains the main perspective of narrative studies. Patrick C. Hogan supports an analogous hypothesis by pointing out that studies on the category of temporality in the narrative are still mostly reduced to the linear, structural conceptualization of time as explicated by Genette, which has its undisputed worth, but in a time of increasingly bolder and more transdisciplinary offerings within the modern humanities, it demands at least a renegotiation. Obviously, it is essential to note that the post-classical turn enormously transformed our understanding of narrative and the narrative theorists keep pushing the borders of the field, but despite that, some issues remain puzzling.

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1 Project funded by the Ministry of Science and Higher Education as part of the National Programme for the Development of Humanities between 2014 and 2016.
4 P.C. Hogan, op. cit., p. 3.
As I have already mentioned, Marie-Laure Ryan advocates strongly against restricting narrativity studies to the medium of verbal texts, arguing that a narrative is constructed as a mental/cognitive script, which can be realized in many different media\(^5\). Ryan also clearly states that she does not mean to perceive narrative only as part of a linguistic paradigm. Instead, she says that an alternative for this codification is considering the category as a certain kind of meaning\(^6\). Even though Ryan does not want to contradict the existence of a narrative, both on discourse and story levels, she focuses her attention upon the latter, from which she derives the determination of the meaning of a narrative. Ryan defines narrative as a cognitive construct or a mental image built by an interpreter with reference to the text\(^7\). Narrative is thus constructed in a double way: as a “textual act of representation” that relies on encoding its meaning, and as the abovementioned mental script which, as Ryan emphasises, does not generate narrative, but is itself constructed as a narrative\(^8\). Explaining the contradistinction of having narrativity and being a narrative, the scholar writes that certain cultural products and experiences can have a narrative potential and an ability to create mental scripts, while other “semiotic objects” are created with a clear intention of eliciting the construct\(^9\). Ryan’s contradistinction and her turn towards the recipient-constructor of a narrative opens new possibilities in narrativity studies, or rather in the studies of narrativity as a cognitive potentiality, by stepping outside the medium most predestined for it. This means that the medium is still very important for research on narrative (and I will show that it is strongly relevant especially in the field of artistic practices based on so called wetware), but at the same time narration is a transmedia category. Even though Ryan’s specifies function in the area that studies sign and linguistic representation as the most natural reference point for mental processes, she strongly emphasises the role of cognitive functions, and points towards mind studies, which are also supported by David Herman\(^10\). This research does not reduce the narrative to the dimension of the psychophysiology of perception, it combines both elements: media specificity of complex artistic experiments (such as in bioartistic works) and narrative experience, which is usually based on some affective reactions of the body.

This seems the proper way to think about narratives, allowing the expansion of areas open for narrative analysis, but such an expansion is never simple. The reason for this might be that even in the latest approaches to narrative and narrativity only a few scholars attempt to go beyond the media products of culture, which easily undergo a narrative analysis. Considering narrative in relation to visual objects is not obvious, as proven by some recent attempts at defining narrative in this area through theories of gradation

\(^6\) Ibidem, p. 8.
\(^7\) Ibidem.
\(^8\) Ibidem, p. 9.
\(^9\) Ibidem.
\(^10\) D. Herman, Storytelling and the Sciences of Mind, Cambridge 2013, p. 12.
or narrative modality\textsuperscript{11}. It is not an easy task, especially when scholars do not want to constrain themselves to an analysis of the verbal layer, which appears in most audio-visual and multimedia works. Equating narrative with text offers, after all, an obvious way out of such analysis. Unfortunately, this is the path taken by most theorists who claim to be researching the narrative of media such as computer games or comic books\textsuperscript{12}. A noticeable contemporary tendency to declare the need for transmedial narratology (Ryan)\textsuperscript{13}, which embraces the fact of multimodality and translationality of modern media (Doloughan)\textsuperscript{14}, is thus a laudable idea, but it forces us to ask new questions rather than formulate obvious diagnoses\textsuperscript{15}.

The judgementsal resonance of the last two paragraphs is deliberate. The deeply-ingrained and possibly not entirely wrong attachment that narratologists feel for semiotics (not to say – structuralism) is an adequate motivation for posing questions to narrative theory that arise from observations of modern artistic practices and philosophical deliberations. These questions concern issues such as whether a narrative that is not a representation by the means of language/text is possible, and whether a narrative, or even forms of narrativity that are understood to be a certain potentiality without any form of sign-representation are possible. These issues will not receive a final answer in this chapter, but these questions do warrant serious consideration. They are closely linked to the propositions postulated in affect theory – a research area that is strongly expanding in modern humanities (including the narratological field)\textsuperscript{16}, which should prove useful in the development of critical research about narrative, especially in liminal cases. Affect theory also allows the inclusion of reflections on corporeality in narratology, while preserving the definitional boundaries of narrative.

The affective perspective is essential for reflections on liminal cases of narrative, such as bioartistic narrtive, which is an uncommon subject of narrative analysis. The very important 2014 volume by Ryan and Thon, concerning the concept of the storyworld in different media\textsuperscript{17}, does not offer the possibility of narrative study of these kinds of so called artistic practices. Visual art is not an obvious inclusion in a book on narrative because bio art constantly challenges the limits of representation. Also, bio art typically tends towards corporality, which often remains autonomous in relation to the rational, conscious analysis of narrative. In the case of a bio art work, it is difficult to speak


\textsuperscript{12} J. Witek, Comic Books as History: The Narrative Art of Jack Jackson, Art Spiegelman, and Harvey Pekar, University Press of Mississippi, 1990.

\textsuperscript{13} M.-L. Ryan, op.cit.


\textsuperscript{15} Very promising is in this context is the book, New Narratives: Stories and Storytelling in the Digital Age, edited by Ruth Page and Brownen Thomas.

\textsuperscript{16} I am talking about Patrick C. Hogan’s book, Affective Narratology.

of any sort of content which would not be superimposed, and it is difficult to distinguish any formal or stylistic devices that might create a narrative, however, it would be unfruitful in this case to analyse bio art with traditional aesthetic tools. And despite the fact that one can look for useful research tools in the general field of new media research (especially concerning electronic literature), or literary research, but in the cognitive context, this particular kind of art, which is based on biotechnological procedures and philosophical concepts operating on living organisms, actually requires us to create a new methodology, or at least to create different categorizations and definitions of narratological concepts than those that already exist. This seems worth the risk, because the field of bioartistic creation is an expanding area of modern artistic practice and it can bring interesting perspectives on research regarding nonverbal forms of narration. While only starting to recognize the possibility of conducting such a research, this study postulates the use of the affect theory, the category of experientiality (as understood by Monika Fludernik), focalization, and narratological conceptions of the storyworld.

Narrativity and Affectivity

Isobel Armstrong writes that the most important axiom is the assumption that affects, which are experienced by both consciousness and body, transgress categories and belong “to mind and soma, straddling conscious and unconscious just as they straddle mind and physiology.” In her interpretation of affectivity, Armstrong finds the possibility for breaking the thought/emotion dichotomy, and her conviction is strong enough to describe it as an axiom. The affective perspective, however, is not a coherent research field, as it is developed in different ways by various academic disciplines, for which the only common point is the category of affect. Affect itself is often interpreted in different, often conflicting ways. In principle, there are two points of disagreement that determine the difference between theorists of affectivity. The first one concerns the relations (identification, similarity or difference) between affect and emotion, the second – the dispute about whether the affective experiences are precognitive, if they are an unconscious, automatic reaction of a biological organism, or are entangled with consciousness in a much more complicated relationship. Close identification of affects and emotions – in reference to neurobiological research – is recognized by Patrick C. Hogan, who suggests moving from formal narratology to research concerning emotions.

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19 An interesting proposition in this area is introduced by Magdalena Rembowska-Płucienik in her book, Poetyka intersubiektywności. Kognitywistyczna teoria narracji a proza XX wieku, Toruń 2012, which I will use as reference in this article.
which are considered as the basis of narratology. Hogan notes that previous narrative research has mainly been based on searching the texts for language-based, rhetorical operations and their description(s). Instead, he proposes to direct our attention to events and actions of people that are based in an emotional system, as described by neuro-cognitive research. Hogan considers the narrative structures in stories to be a product of human emotional systems, which means that certain emotions (desire, fear, hate) can be developed as narrativized stories, which is incredibly important in the context of the history of literary genres such as epic poetry and romance. The underlying reason for distinctively narrative categories (e.g., time) is our emotional perception of them, not only of the form of their conventional presentation. It is important to note that Hogan does not separate the emotional realm from discourse, despite thinking that emotions move outside the medium of language.

The perception of affects (understood here to be the same as emotions) as rationalized forms of corporal experience helps Hogan to avoid the challenge of defining affects as body reactions that are beyond conscious control. This is the perspective postulated by many of its codifiers, such as Brian Massumi, Nigel Thrift, Teresa Brennan, and Patricia Ticineto Clough. According to Clough, even though emotions and affects are connected, affectivity is a part of corporeality that escapes both rationalization and conscious control, and is – at least partly – independent from the sphere of reflection (although indirectly connected to it). Clough links this way of thinking about affects to the ideas of Deleuze and Guattari (philosophical thinking that can be traced back, in turn, to Bergson and Spinoza). On the other hand, Brian Massumi describes affectivity as an “incorporeal materialism” and refers to the vision of materiality postulated by Deleuze and Guattari, perceiving the body as space where affects are expressed in the form of a constant, dynamic process of change. According to Massumi, affects are deeply corporeal experiences that engage the senses, the flow of energy, and biochemical processes. The scholar also notes that, while emotions are narrated processes of action and reaction with certain functions and meanings, affects cannot be described unambiguously. In his diagnosis, Massumi refers to an issue that is both extremely important and problematic for narrative studies, one that Hogan (who prefers simple identification of affects and emotions) does not broach. According to the theorists of affectivity understood in a precognitive manner, affects are something beyond narrative because they are non-linguistic and non-linear. As Tomasz Dalasiński sums it up, “Affects transport thinking about the subject from a narrative-discursive perspective to a post-narrative, or even a post-discursive one,

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26 Ibidem, p. 4.
29 Ibidem, p. 11.
where the key role is played not by the development of ‘self’, but by the constantly changing present”\textsuperscript{30}. Sendyka, quoting Gumbrecht’s opinion on the “pursuit of non-narrative forms”\textsuperscript{31}, also finds these “non-narrative forms” in affects that reside outside of language\textsuperscript{32}, in the “post-semiotic” and “post-mimetic” space\textsuperscript{33}. According to her, semantics and semiotic are thus a misguided route of affective analysis\textsuperscript{34}. These statements, even if formulated too hastily, expose a clear tendency to think of narrative in the context of language, linearity, sign theory and representation – even though the last one is a much more complex issue. The crucial question when considering the application of the affective perspective to narrative studies is: can this be possible? A compromise could be achieved with the concepts of affectivity that do not place it exclusively in a pre-cognitive space. I shall discuss this further in the following sections of this study, but still, I am of the opinion that the radical question about the possibility of creating a narrative outside of discourse, language, and any form of mimetic representation remains both open and incredibly important.

According to Dalasiński, “Hybridity of affectivity means that the artefacts cannot be defined with full responsibility as either conscious or unconscious, biological (corporeal) or social (civilisational and cultural), material or immaterial etc. phenomena, because affects work to abolish these dichotomies”\textsuperscript{35}. In his ideas, Dalasiński confirms Isobel Armstrong’s discussion of affects as negotiable, fluid categories. Britta Timm Knudsen and Carsten Stage correctly set apart a group of female scholars associated with feminism and posthumanism (e.g., Judith Butler, Margaret Wetherell, and Lisa Blackman) who are sympathetic to the vision of affectivity that does not decide where the affects should be assigned\textsuperscript{36}. However, the scholars themselves have proposed a typology of affects that joins both perspectives, confronting affect with the category of discourse. The postulated typology is based on distinguishing three types of affect: pre-discursive, partly discursive and partly non-discursive. The first category contains the affective experience excluded from discourse, but only if we understand discourse as a purely linguistic category, and affect as something that cannot be put into words. These scholars reject the definition of affects as pre-cognitive experiences because (as they state when discussing partly discursive affects) it is not possible to make a clear distinction between “bodily non-representational living and conscious representational cognition, because these dimensions constantly intertwine”\textsuperscript{37}. They state this in spite of their support of Thrift’s

\begin{thebibliography}{99}
\bibitem{31} R. Sendyka, op.cit., p. 16.
\bibitem{32} Ibidem, p. 15.
\bibitem{33} Ibidem, p. 17.
\bibitem{34} Ibidem, p. 15.
\bibitem{35} T. Dalasiński, op.cit, p. 108.
\bibitem{36} B.T. Knudsen, C. Stage, op.cit., p. 15.
\bibitem{37} Ibidem, p. 19.
\end{thebibliography}
and Massumi’s concepts which, according to them, correctly contest representationalism-based theories. The third category is crucial and it means that discourse plays a modal role in the production of affects. In other words, even though affects are never free from a discursive filter, they are never fully dependent. Our cognition – the scholars follow here a well-known observation made by Maurice Merleau-Ponty – is generated on the basis of the chiasmus between a perception of world from the inside of the body and a perception from the outside (i.e., through every existing cultural convention and scheme)\(^{38}\).

An interesting perspective concerning this issue, complementary to Knudsen’s and Stage’s typology, is introduced by Natika Newton—namely, the scholar has noted that the basic problem arising from the application of the category of representations in cognitive theory is associated with the way these representations are defined: as static outlines, symbols taking the form of neural groups. Meanwhile, in cognitive processes, of crucial importance are dynamic, spontaneous acts that go beyond established patterns of behavior and perception; therefore, Newton proposes the introduction of the category of mental activities that could replace static representations\(^{39}\). According to this approach, “[c]ontent is delivered by the context and the purpose of representative activity, which is not packed in a ready-to-apply manner in neural patterns recruited within representative activity”\(^{40}\), and this approach is related by the author to an ascertainment by Merleau-Ponty, who believed that representation could not be independent from an entire sequence of behaviors, as it does not have any actual meaning for the body. According to Newton representation is an activity (and a dynamic one at that), which does not express any abstract relationship between separate or static objects. It also applies to thought processes, during which we “manipulate” the objects observed; therefore, Newton maintains that representations and images are modal in nature. This, in turn, has the following meaning: “Many people think of all images as visual, but there are excellent reasons to expand the term to include representations of all sensory, motor, proprioceptive, and affective states. ... In short, we can imagine anything we can experience”\(^{41}\). Association of mental imagery with actions and experiences, which is an in-depth redefinition of the category of representations in cognitive processes, also involves affective reactions based on experience and volatility. Newton proves that affectivity can operate in the area of representation, but not one understood as static, abstract mental scripts. Although Knudsen and Stage’s typology is not explained on the basis of the theory of embodied cognition, it gains all the more importance in the face of Newton’s conclusions.

In general, I agree with the concept postulated by Knudsen and Stage, and it is the starting point for my thinking about affects in the context of bio art. It is also

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\(^{38}\) Ibidem, pp 20-21.


\(^{40}\) Ibidem, p. 76.

\(^{41}\) Ibidem, p. 79.
helpful in including the affective perspective into narrative studies, as in this interpretation, affectivity is never entirely free from discursive baggage. However, with help from a few artistic projects, I would like to consider also whether we are able to distinguish a purely biological affective experience that, in itself, can contain narrative potential and convince us to project stories (i.e., to construct mental representations that are not only mimetic projections of observed universes).

**Genetic Manipulations, Tissue-cell Experiments and Biometrics: The Narratives of Bio Art**

I situate bio art among so-called new media art, even though it is more out of an attempt to create a rough categorization than out of a conviction that this is the correct place. Bio art is not a homogenous area of artistic pursuits, and within its borders one can find at least a few leading trends, such as: transgenic art, *in vivo* and *in vitro* (performed on living organisms and on tissues or cells isolated from living organisms and modified outside of them), DNA art[^42], or what I describe in my research as biometric art, by which I mean art based on the procedures of measuring functions of living organisms. These projects are realized as sculptures, installations, various forms of imaging, architectonical and relational projects.

Polish scholar of bio art, Monika Bakke, also brings attention to problematic aspects of her categorization, however, correctly deciding that “the common feature of various realisation in this field is the fact that they arise from the interest in the phenomenon of life in context of biology and biotechnology”[^43]. Also important is the individual creative process based on inspiration, understood in a manner derived from the romanticism, which has been replaced in bio art by complicated technological procedures, and the art’s character is usually processual (i.e., the living organism as an art object is constantly developing) and this has abolished the dichotomy between art work and living organism, which traditionally is only art’s recipient. The recipient status is negotiated in most bio art projects, not only because of their affinity with modernistic theory and practice, but because of the very matter of artistic endeavours.

Bio art acts are numerous enough that it would be difficult to make even a basic list. The Tissue Culture and Art Project group’s Semi-Living Worry Dolls is perceived as one of the more important works in this art movement. It is inspired by so-called “worry dolls” from Guatemala, which – even though they currently are a product for tourists – were once a part of a traditional belief system: they allowed children to give away their concerns and worries. In the group’s interpretation, the dolls, created out of living cells grown in laboratories, tell stories about life and dying (in contact with the non-hermetic environment the “dolls” die), which emphasises the way the modern world has moved the boundaries between natural and artificial, alive and dead[^44]. Especially intriguing

[^43]: Ibidem, p. 146.
are projects by Anna Dumitriu, and in the context of narrativity studies the most important one seems to be *The Romantic Disease: An Artistic Investigation of Tuberculosis*, which consists of sculptures and installations made out of historical objects that were subjected to the bacteria that causes tuberculosis. The goal of this project is to tell an alternative history of tuberculosis, not from the perspective of the diseased people, but through the objects and the behaviour of microorganisms that spread and cause the disease. The project in question would fit perfectly into a post-antropocentric narratology studies perspective, which I postulate in the last part of this article. Using both projects as examples, one can see the phenomenon that I would like to call “re-narrativization”, by which I mean media appropriation, transmission and remoulding of certain narratives enrooted in culture – functioning as plot, plot threads and mythological motives, as well as religious beliefs and literature. This process is of great importance in the context of bio art, as this appropriation entails changes in the very “matter of narrative”, characterised by the medium of the body. Elements of Guatemalan belief and notes on tuberculosis have been transformed into their corporeal, biological variants that function on the affective level not only on the recipient’s side, but also on the side of the artistic work. Stories that possessed a doubtlessly linguistic form were transformed into language that can barely be called a language, as it functions beyond the area of semiotic representation.

Another research perspective, postulated by Monika Bakke, writes bio art into a social context: “This is how bio art fits into the area of various narratives we create, fascinated by biological breakthroughs and the possibilities of biotechnology”, which allows non-specialists to understand their meaning, at least in part. Thus, bio art can also be analysed as a narrative translation of areas of knowledge and activities that are not generally narrative. Furthermore, in the case of recent conceptual and critical art trends, this narrative potential is not located within the artistic object itself, but within its context (i.e., political and social meaning). The whole does not create a grand modernist narrative, but its hybrid, a performative narrative, although the analysis of the socio-political context is obviously one of the possible methods of studying narrative in bio art.

However, in this article I would like to consider some different ways of thinking about narrative and narrativity in bio art and turn to works by the Turkish artist, Pinar Yoldas, and to pieces by Philihe Rahm and Jean-Jacques Decosterd, described as “physiological

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46 I have not yet encountered this term in scholarly works, but it is important to note here that David Herman is also leaning towards transgressing the anthropocentric boundaries in narrative studies, calling this perspective a “narratology beyond the Human”. In his works, Herman is looking for a place for the human “me” in a space inhabited by different life forms; see. D. Herman, “Narratology Beyond the Human”, *Diegesis 3. Interdisziplinäres E-Journal für Erzählforschung*, no 2/2014, https://www.diegesis.uni-wuppertal.de/index.php/diegesis/article/view/165/218 [access: 19.09.2015].
47 M. Bakke, op. cit., p. 146.
48 Just as important could be relating it to the argument on biopolitics and biomedicalizing (Nikolas Rose, Roberto Esposito), or maybe turn to media studies for works on (post)digital painting (B. Bolt) or on the concept of body as a picture (Mark B.N. Hansen, 2004).
architecture”. These works are most likely less known to than the abovementioned flagship bio art pieces.

**Pinar Yoldas and Alternative Tales of Evolution**

Pinar Yoldas creates her works in the United States, and that is where she graduated from university with a project called *Fabula (Fables from a Posthuman World)*, bearing a title that is indicative of her artistic pursuits as a whole. Just as the title proclaims, most of her projects are tales of posthuman worlds and beings, although they are not written down, but created – as installations and certain kinds of sculptures – made out of organic matter: tissue grown in a laboratory, silicon, and glass. The main idea behind her works is speculative biology: presenting a vision of an alternative evolution, a speculation about how the world and the species living in it might look like if the evolutionary rules that have become quite disturbed nowadays, were to stop working. Yoldas has created over a dozen projects related to this concept. I will focus on two of them – *Fabula: Origins of Species* (2008) and *After Evolution* (2013). These projects concentrate on creating alternative biological worlds in the context of the natural world. Bio art in general, and Pinar Yoldas’ projects in particular, deal with very important matter of dependence between media (and in this particular context – the body as a medium) and narrativity.

As Yoldas herself describes it, *Fabula: Origins of Species* is a cycle of drawings, responsive sculptures placed in a lab jars and photographs that show the development of new life forms that emerge as a result of breakthroughs in biotechnology, medicine and engineering, which cause the transformation of natural bodies. Due to these changes, the world in Yoldas’s visions is being increasingly settled by mutants, symbionts and hybrids. It is difficult to judge whether this is a diagnosis of the current state of affairs or a prediction concerning a near future, however, from the recipient’s perspective it is an alternative vision of everyday reality. Characters (some of them entirely fictitious, others a non-standard composite of elements that exist in nature) and universes with their own particular physical parameters were created in the project (e.g., water spaces, or so-called “red fabula”, a universe submerged in a red liquid). One of the most interesting sculptures of both the project and Yoldas’ creative output in general is *Breathing Brain* – a vision of a creature that breathes with its brain, placed on the outside of its skull, instead of with its lungs.

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49 Writing about the relationships of narrative reflection with the theory of evolution and the evolutionary approach to cultural texts, it is also worth remembering the discourses that laid the foundations for this methodological meeting, such as Gillian Beer’s *Darwin’s Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction* (1983), Walter Burkert’s *Creation of the Sacred: Tracks of Biology in Early Religions* (1996), as well as Brian Boyd’s *On Evolution, Cognition, and Fiction* (2009).

50 See: http://pinaryoldas.info/pinaryoldas_cv_march2014.pdf [access: 12.08.2015].

51 Posthumanism is understood here not as the idea of improving human beings and extending their capabilities (transhumanism), but as an attempt to move past the anthropocentric paradigm, where only the human being is distinguished.

52 More detailed studies of this media conditioning are unfortunately outside to scope of this article, but shall be an important issue for a separate paper.

53 See: http://pinaryoldas.info/Fabula/ [access: 12.08.2015].
The *After Evolution* project is constructed in an analogous manner, consisting of drawings, photos and – most interestingly – sculptures, through which Yoldas has created a post-evolutionary world, where Darwinian evolution has ceased to matter\textsuperscript{54}. There are plants placed in their microhabitats and creatures who seemingly belong to one species, which, however, does not resemble humans or any known animal species. They are all placed in adequate conditions – submerged in a special fluid, exposed to the light, intentionally placed around the exposition – so that one can recognize how they remain in a sort of relation to each other. The most interesting installation for me is one that depicts the moment of birth of one the creatures. As we cannot see its mother, and it is entwined with red “vines” reminiscent of an umbilical cord, one can suppose that this is a case of self-birthing, *creatio ex nihilo*.

Especially interesting in the analysis of these two projects seems to be the category of experientiality postulated by Monika Fludernik, as well as the concept of storyworld and the possible worlds theory formulated by Marie-Laurė Ryan. The concept of experientiality is an essential part of the “natural” narratology project. “Natural” narratology has been used by Fludernik to oppose passive, static theories of narrative that rely on a description of elements. While postulating a dynamic, processual vision of a narrative, Fludernik sees narrativity to be an effect of the process of narrativization, by which she means creating narratives through cognitive functions and tools in the mind of the recipient that relate to everyday experiences of the real world\textsuperscript{55}. For this process to take place, a “mediatisation through consciousness” is necessary, and it is essential on different levels of narrative creation: for the narrator as well as for the recipient’s interpretation\textsuperscript{56}. Magdalena Rembowska-Pluciennik describes this aspect of Fludernik’s theory as a “phenomenal change”. The basis of this change is an abandonment of conceptualising consciousness as something that has its own textual representations, and a reconception of it as a medium in the cognitive processes of both the artist and the recipient of the narrative\textsuperscript{57}. Because of that, according to Fludernik, the narrative does not have to be determined by the plot, understood as a sequence of causally connected events. After all, poetry, which is not required to contain a plot, can evoke a much more important narrative experience than a report, even when the report is written according to strict guidelines of sequencing\textsuperscript{58}. This statement stays true to David Herman’s belief that the narrative is a cognitive instrument that gives meaning to every action\textsuperscript{59}.

In the light of Fludernik’s categorisation, Yoldas’ works have enormous narrative potential because the affective-emotional experiences that activate the recipient are especially persuasive in creating a tale around them by stimulating our cognitive

\textsuperscript{54} See: https://vimeo.com/78141741 [access: 12.08.2015].
\textsuperscript{56} Ibidem, p. 278.
\textsuperscript{57} M. Rembowska-Pluciennik, *op. cit.*, p. 83.
\textsuperscript{58} Ibidem, p. 16.
\textsuperscript{59} D. Herman, *Storytelling*, *op. cit.*, p. 228–240.
apparatus. Fludernik writes, “All experience is therefore stored as emotionally charged remembrance, and it is reproduced in narrative form because it was memorable, funny, scary, or exciting”\textsuperscript{60}. In light of Yoldas’ projects, the stimuli that initiate the process of narrativization seem to be especially intense. Obviously, they also strongly refer to the experiences of real life, which are essential in creating a narrative through a mediated consciousness\textsuperscript{61}. As Justyna Tabaszewska writes, this is because: “The affect’s function is not only to report on certain emotions, but also to activate them, ensuring they are experienced and felt”\textsuperscript{62}. However, the key issue here remains not the abstract thesis about the attractiveness of certain stimuli, but the pragmatics of narrative, often emphasised by Rembowska-Pluciennik, who assumes that narrative has an informative function\textsuperscript{63}. In the case of Yoldas, this information is especially intense, engaging the preceptor’s consciousness, and relating to their most intimate experiences. When confronted with Yoldas’s projects, the recipient will probably not create a coherent plot, but it is possible that the strong perceptive experience will elicit a more intense process of narrativization than might emerge by trying to determine the cause and effects of events. Thus, we remain in the area of narrative potentiality, as the narrative created in this context can be expanded and built on stronger cognitive experiences than the kind of narrative that might be based on decoding evident narrative elements in a text or some other narrative object.

In contrast, Ryan’s storyworld is a world well-adjusted for story to appear and exist in. It is a constantly dynamic model of ever-changing events and situations, represented in the recipient’s mind\textsuperscript{64}. It possesses its own parameters: characters, setting, laws of physics, social and moral rules, and events\textsuperscript{65}. Events are also closely linked to the plot and this particular connection between the narrative and the category of plot makes it difficult to apply the concept of storyworld to media other than literature (and even here, almost exclusively, the novel) and film, even though the very idea of Ryan’s work is to propose a transmedial perspective. Ryan also asserts that the storyworld consists of extra- and intra-diegetic elements: parts of narrative that evidently belong to the world created in the story or belong there only in part, or stay outside of it while retaining influence\textsuperscript{66}. Ryan does not provide many examples of unconventional realizations of the storyworld idea, deciding to stay mostly within the textual universe. Meanwhile, application of this idea to a space-time created out of biological materials, partially in a laboratory, could lead to interesting results. The universes within Yoldas’s projects do not have appointed, general rules according to which they function so that the reader needs to develop

\textsuperscript{60} Ibidem, p. 21.
\textsuperscript{61} Ibidem, p. 9.
\textsuperscript{63} M. Rembowska-Pluciennik, op. cit., pp. 98–102.
\textsuperscript{64} M.-L. Ryan and J.-N. Thon, op. cit., p. 33.
\textsuperscript{65} Ibidem, pp. 34–37
\textsuperscript{66} Ibidem, pp. 37–38.
further. Rather, Yoldas presents them as a kind of theoretical framework with assumptions concerning everyday experiences. Although a world, there is not a space closed for imagination, at the same time it is not only designed, but also artificially created. Within this kind of a storyworld, according to the criteria listed above, it is possible to think of this category in reference to the Turkish artist’s projects, as it has its own laws of physics, biologically-formed characters, rules dependent on the matter used to create it, and – because of the cognitive operations – a recipient with enough competence can establish its social and moral rules. Narrativity generated in such a storyworld is not set out by written rules and described elements, but is designed in such a way that it can initiate a narrative through intense stimuli that provoke the cognitive apparatus, such as: confrontation with physical corporeality “presented” before us, with shapes that make us uncomfortable, or though simulating temporality not with verbal indicators of sequencing, but through change of states dependant on the laws of the world created and our impressions. In a storyworld built in such a way, based on affective stimulation, some of the indicators assigned to this category are redefined or negotiated, not because this distinction is wrong, but due to their material specifications. After all, this is a world about which the recipient does not speculate based on textual indicators, but one which they literally have in front of their eyes and, therefore, can be supplemented with additional details. Such a physically existing world seems predestined to much larger degree than the traditional textual world for stories to appear in it. This world is no longer told in words, represented, but it is a world that actually exists – one that is experienced and is a reference point for mental constructs. Obviously, this is not about this gradation, but about pointing out that the storyworld can also have its own exemplifications in realizations that are a challenge for narratology.

By transcending the textual matter while creating at the same time a certain kind of a storyworld, Yoldas’ universe designs also fulfil the idea of possible worlds, directly implanted into narratology by Marie-Laure Ryan in 1992, although the usefulness of this concept was signalled earlier by Umberto Eco, Thomas Pavel, Lubomir Doležel. Distinguishing both categories – storyworld and possible worlds – is especially important in the context of the Turkish artist’s projects, as on one hand they highlight the potential narrativity of the created universes, and on the other hand they make their ontological wholeness apparent (possible worlds are first and foremost a philosophical concept), which seems to strengthen and actualize the story potential of those worlds. It is important to note here that using possible worlds theory in narrative studies has been criticized by philosophers (such as Ruth Ronen) who perceive literary universes as unique in this ontological concept. Moving past the equation of narrative with linguistic matter can thus bring about an even more interesting application of possible worlds theory to narrative studies.

69 Ibidem, p. 446.
The theory of possible worlds, in line with their philosophical definition, are defined with reference to the actual world, which is the prime element of reality and, depending on interpretation, is either the one where the occupant is placed (Lewis), or the one that exists as an autonomous from others, where one remains an independent being (Rescher). As Ryan notes, what has become essential for literature it is the issue of the truthfulness of certain statements and laws of logic that maintain a relation to the fictional worlds in stories\textsuperscript{70}. The consequence of these reflections is an agreement – as postulated by Ryan and Kendall Walton – that when a reader reconstructs the fictional world, they fill in the blanks and assume a certain similarity to the world of experienced reality. This means that the possible world becomes an actual world, an essential element of reality\textsuperscript{71}. Moreover, the possibility of the fictional world makes it possible for it to move past the boundaries of its own textuality due to its basis in the real universe\textsuperscript{72}. Such a possible world becomes a complete modal system and a comprehensive ontological being, at least in relation to the recipient’s experience, in this case – the reader’s experience\textsuperscript{73}. 

Umberto Eco distinguished three kinds of possible worlds\textsuperscript{74}, two of which describe the universes created by Yoldas. The first one is invented and created by the author, its elements are presented in the plot as actual, while the second one is believed in and imagined by the reader during the act of reading, and which is either confirmed or negated in the course of the narrative sequence. The third kind of possible world is one imagined by a character in the universe, but in case of Yoldas’ works we can only assume the existence of this third type, as it is difficult to explicitly confirm\textsuperscript{75}. The criteria defining the status of possible worlds are their possibility and accessibility in relation to the real world, and they depend not only on the laws of logic, but also on physics and material causality\textsuperscript{76}. These criteria help to evaluate whether a world constructed in a particular way could actually exist.

This short description of the possible worlds concept helps to specify that in Pinar Yoldas’ projects we encounter a particular kind of universe creation. It is not a textual world, or even an explicitly fictional one, but rather a kind of alternate speculation on reality. It befits the real world in such a way that is becomes a variation and the possibility of its existence is confirmed by the presence of scientific data and other predictive para-textual information. Thus, it possesses – I shall emphasize – its own parameters and laws of physics, which are not only theoretical indicators, but also directly act to determine the created world and the creatures that exist in it. The world might have been imagined by the author, but those notions have been continuously verified by the biotechnological

\textsuperscript{70} Ibidem, p. 448.
\textsuperscript{71} Ibidem, p. 447.
\textsuperscript{72} Ibidem.
\textsuperscript{73} Ibidem.
\textsuperscript{74} U. Eco, The Role of the Reader: Explorations in the Semiotics of Text, Bloomington 1984, p. 246.
\textsuperscript{75} Ibidem.
\textsuperscript{76} M.-L. Ryan, “Possible-Worlds”, op. cit., pp. 448–449.
procedures, which are supposed to introduce the optimal data. This world immediately goes from possibility to actuality on the authorial construct level, but this does not mean that it does not leave any place for the recipient. When confronted with the Turkish artist’s projects, we are still being invited to fill in the blanks, to relate them to our everyday experiences. It almost seems that because of the matter in which the universes are realised, they initiate narrative in a much more intense manner, engaging the senses which remain rather passive in the process of reading, such as touch. Moreover, although the project leaves little for the recipient to imagine, when it comes to the creation of space-time, it seems that they invite the recipient in a much more intense manner to fill it with stories connecting these elements into a coherent whole, thus confronting them with reality. On one hand, it is an autonomous world, which exists (materially and physically) independent of interpretation, while on the other hand, it has a narrative potential in that it is actualized in different variants of the basic version through the various interpretations of the recipient. The medium of the work not only exploits the actions of the actual universe, but also the factors conditioning the emergence of a story.

Pinar Yoldas’s projects are extremely interesting conceptually and I realize that these descriptions are only an introduction to the narrative studies perspective, but I believe that they point to the most important issue in this context: affective theory can be an interpretative analytical tool for narrative. We should also add that, referencing Knudsen and Stage’s typology, we encounter here recieving practices that are partly non-discursive, based on affective experiences, changed into their emotional and conceptual interpretations. In the scholars’ categorization, they connect non-representative corporeal and discursive spheres, which are difficult to set apart.

Biochemical Processes and Experiences: The Narrativity of Physiological Spaces

Physiological architecture is one of the most interesting examples of bio art, although this categorization is obviously not the only one available. Nathaniel Stern, referencing the works of Rafael Lozano-Hemmer, one of the best known artist of this trend, describes this kind of artistic endeavour as an engagement with “connective environments”, a relational architecture realized in flesh space, which Stern classifies as interactive art. Relationality, interactivity, processuality, corporeality are without a doubt the most apt labels for the projects of Lozano-Hemmer, Philippe Rahm and Jean-Gilles Decosterd (the latter a duo creating architectonical spaces that test how the human body reacts to external factors; i.e., changes in lighting, climate changes, and changes induced by radiation). I would like to discuss the works of these artists in this part of the article.

I shall focus on one particular work by the duo, the 2002 Hormonorium, but first I would like to write about another intriguing project by them, which makes use

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77 I borrow this description from Justyna Tabaszewska, see: J. Tabaszewska, op. cit., pp. 223–226.
79 See: the artist’s official website: http://www.philipperahm.com/data/about.html [access: 13.08.2015].
of the ability to manipulate meteorological data: the 2007 Split Time Café. This project is an attempt at manipulation of time, or more precisely – how our body experiences time changes. In one space (the cafe) three temporal perspectives have been constructed. The first one corresponds to the natural one, in accordance with the real weather parameters. The second one is a staging of a night-time that uses special yellow-tinted glass coating that block sunrays, which in turn causes a rapid melatonin secretion increase, which is responsible for the need to sleep. The third one has been created with a blue-tinted glass that allows to pass and emits the radiation that blocks melatonin secretion. Thereby, according to the designers themselves, architecture in question is not only a design of space, but also – of time. Rafael Hartmann Schweizer describes the duo’s projects as discovering “a fourth dimension of architecture”. Because of that, Split Time Café can also be perceived as a project disputing the well-established linear temporality that ascribes to precise rules of chronology, characteristic not only of the classical concepts of narrative. Rahm and Decosterd’s project shows how easy it is to manipulate the experience of time and that it is the experience that builds temporality. Linguistic indicators in novels or technical measures in films are supposed to suggest it to us, create temporal framework for narrative. Split Time Café does not suggest the experience, but rather recreates (and creates) it from our everyday existence. The work is staged, creating an affective experience based on the stimulation of hormones, and reactions within the human skin and retina. In linguistic narratives, temporality is more or less effectively suggested, but in Rahm and Decosterd’s project it is designed to create a direct experience, based on affective and emotional reactions.

I think that the second kind of temporality perfectly fits the criteria of narrativity, especially when treated as an element of a narrative (i.e., involving purposeful changes in the state of things and involving sequencing that arises from our perception of the passage of time). How we relate these changes to the abovementioned criterion of experientiality is crucial. However, when it comes to physiological architecture this category gets much more complicated. We are not dealing anymore with a stimulus in the shape of an autonomous art work “made” out of a body, which initiates the narrative through a stimulation of the cognitive schema. Experientiality here becomes participative, performative, and as an “art work” it is a relational project that in itself is based on a stimulation of the affective reactions of our body. Narrativization, which happens because of the cognitive processes of mediated consciousness, functions here not only outside of the art work, but also in the very project, where participation equals co-creation. Narrativization happens not only in the process of reception, but – as the lines between reception and co-creation are blurred – also during the act of creation, which indicates more than one level of generating narrative. Jill Bennett describes it well when she states, in the context of experiencing trauma, that the affective experience can be activated or staged.

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not only referred through references. This kind of experiencing and creating of an art work clearly discredits the issue of representation, as in this case where the recipient does not simply perceive the representation of certain affective situations/events, because they actually experience it themselves as dynamic activities with a cognitive dimension (in reference to Newton’s assumptions).

I think this will become even more apparent in the context of the Hormonorium project, indicating other narrative consequences it can bring. Hormonorium has a very complicated technical specification, so I will only describe it in general, referring interested readers to a detailed description by the authors themselves. As Rahm and Decosterd point out: “[The project] is based on the disappearance of the physical boundaries between space and the organism. ... Going beyond visual and metric mediation, establishing a continuity between the living and the non-living, the Hormonorium opens up to the invisible, to electromagnetic and biological determinations.”

The idea behind the project is the simulation of a high-altitude, mountain climate by manipulating retinal and skin reactions, as well as the manipulation of the process of breathing. To do this, the artists have placed a few hundred fluorescent tubes in the floor, which emit UV-A and UV-B radiation. As a result, the retina is stimulated in such way that it activates the pineal gland, manipulating the level of melatonin in the body. This causes a feeling of rapid fatigue, drowsiness, but also an immediate agitation, desire, and excitation. Further, the manipulation of the nitrogen levels in the air, which is also an aspect of the project, creates a decrease in the oxygen content to a level typically encountered at around 3000 meters in altitude. This oxygen deficiency causes disorientation, confusion, but also euphoria. However, what is extremely interesting, after 10 minutes the body starts to naturally produce erythropoietin, which increases the level of red blood cells in the body, causing a rapid oxygenation of the muscles and through that a momentary increase in physical efficiency and stamina. In time, the experiences in the Hormonorium space are identified as emotional states, but at first, they are difficult to consciously and unambiguously classify, and second, they are initially purely affective experiences, independent from our own will. Out of these experiences of changing state: drowsiness, fatigue, etc., we create a subjective tale, and a non-verbal narrative, which – using Fludernik’s concepts again – does not need to be structured by a plot.

This kind of participatory, affective experientialism can also be the reason for an attempt at redefining the category of focalization, which is a questionable area of narrative studies. In an article about the issue of focalization, by evoking the differences in understanding this category in classical and post-classical narrative theory, as embodied by Genette and Mieke Bal, Luc Herman and Bart Vervaeck consider focalization to be a way

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84 Ibidem.
85 Ibidem.
86 M. Fludernik, op. cit., p. 16.
in which the reader receives access to the narrative worlds of characters and events\textsuperscript{87}. If the hero is the focalizer, then the reader perceives narrative (events, other characters, space-time) through the lens of their experiences\textsuperscript{88}. Narrative is conducted from the point of view of the hero, and the reader is the recipient.

The issue of the place and the function of narrative in literature is considered in an interesting way by Magdalena Rembowska-Pluciennik. Her writing is especially important to us here, as it can be perceived a crucial starting point for a further renegotiation of the definition of narrative. Rembowska-Pluciennik introduces the notion of sensual focalization, which she understands as a representation of “sensual experiences as an essential element of narrative depictions of a character’s consciousness”\textsuperscript{89}, and an intersubjective tool that allows the reader to gain access to the inner worlds of the characters\textsuperscript{90}. It is thus an “insight into the perceptive experience of the character”\textsuperscript{91}, but with a strong assumption that we are talking here about stimulating “sensual experiences of another subject by both the narrator and the other characters”\textsuperscript{92}. To recreate in a sensible manner the experiences of another subject, we have to apply them to our own experiences from real life. Without the person perceiving the certain experience and somehow partaking in it, narrative could not happen. Rembowska-Pluciennik correctly notes that: “The highest level of closeness between the narrator and the hero happens when you represent psychosomatic experiences, corporeal reactions to emotions and feelings and stimuli from the direct-contact senses: touch, smell and taste”\textsuperscript{93}.

This is an important idea, especially when we want to reference not only literature. However, as Pluciennik stresses, it remains a figure of “embodied simulation”\textsuperscript{94}, a representation of experiences and feelings. The narrator can relate to this, and can even co-experience it on a transitional basis, but the reader can never feel the narrator’s own experience. The textual medium remains the limitation here.

In case of physiological architecture one should attempt to ask what happens when the focalizer, hero, recipient and possibly also the narrator are identical, or when the focalizer is at the same time the hero, narrator, and recipient of the narrative. This is an improbable situation in literature and film\textsuperscript{95}, but we can observe it in relational projects. The basic situation is as following: the recipient, who enters the project space, constantly perceives everything that belongs to the universe in question, and takes part in it. The recipient becomes the hero of the world, the space, as their experience is one


\textsuperscript{88} Ibidem.

\textsuperscript{89} M. Rembowska-Pluciennik, op. cit. p. 189.

\textsuperscript{90} Ibidem.

\textsuperscript{91} Ibidem, p. 191.

\textsuperscript{92} Ibidem, p. 190.

\textsuperscript{93} Ibidem, p. 195.

\textsuperscript{94} Ibidem, p. 198.

\textsuperscript{95} It possible in hypertext fiction, but I cannot imagine such a situation in full in traditional fiction. It also seems impossible that someone could be placed in all these roles at the same time in a movie.
of the elements of the project, but at the same time as they perceive the whole artistic act they are its recipients. They feel their own experience as the hero and the subjective narrator, and they participate as a “narrative agent” in the story. Narrative is created here from the hero and the recipient levels at the same time, and the latter receives – in a direct manner – access to a narrative created from the character’s own perspective (which follows the previously mentioned definition of focalization by Herman and Veraveck). Thus, when referencing Rembowska-Pluciennik, it is important to stress that in such a situation the inner states belong to the hero of the event, and not to another subject (esp. in the context of focalization). They are not represented or simulated, but psychosomatically experiences are created in statu nascendi. However, it is difficult to imagine a narrative situation in literature or any other medium based on sign representation that would move beyond simulation. We are not discussing an intersubjective experience here, but rather an intra-subjective one, that gives sense to its own experiences. Such a bodily tale is not reproduced, reconstructed, or supplemented with respect to the included elements; it is created, produced, and its basic matter is (as mentioned by Newton) a deliberate change in sensation or mood; it is a dynamic activity strongly binding this affective story to narrative. The resulting narrative would be the one that is not “projected by references”, it does not reconstruct existing tropes or text/media signs or the process of replenishing undefined places. This narrative is activated, stimulated, and initiated not by conventional elements traditionally attributed to narrative, but by a directly-induced, performative experience (esp. as Bennett defines it).

Focalization redefined in such a way seems like an extremely interesting challenge for narrative theory, and I do not think that it can be easily rejected as something beyond the framework of this category. Thus, I would like to propose an affective focalization, in contrast to Rembowska-Pluciennik’s “sensual focalization”, to show that it is not only an attempt to represent experience, but rather an experience itself, often not fully dependent on our consciousness. This category also stresses the fact that functions interweave with each other – in case of mainly the recipient and the hero of the narrative – and emphasise sensual, corporeal experientiality as the basis of functioning for each one.

Other narrative studies’ terms could also go through analogous redefinition, however, for this article I have chosen the ones that I think prove that using affectivity in narrative studies is possible even for classical concepts, and representationism is not an intransgressible perspective here, but rather one that can be negotiated.

**Further Perspectives: Post-anthropocentric Narrativity?**

Applying affect theory to narrative studies can bring numerous interesting theoretical solutions to narratology and create narrative fields capable of encompassing redefined tools and categories. The affective turn itself is also connected to a number of tendencies in modern humanities, and although we do not have space in this text for discussing them, I believe that in time they will create a new direction for narratology.
The most important issues concern the new perception of materiality and the concept of non-human actors. An example of a concept that joins both areas of reflection are Jane Bennett’s vibrant matter theory and Timothy Morton’s hyperobject theory. Both situate human beings in a different sphere than the one that up until now has been comfortable (esp. concerning the line of influences from nature, changes in energy flow, and changes in matter that are of enormous political and cultural importance). These shifts in approach create more than just amendment to human worlds. They are important also when we think of humanity’s history. These concepts also show the influence of non-human factors (e.g., the influence of strains of bacteria in the previously mentioned project by Anna Dumitriu).

Such an “embodied” or even post-anthropocentric narratology has so far remained in the area of thought experiment, but we should stress that this turn would not only constitute of an attempt to answer the question of whether animals create their own narratives, and if so, how do they do so, but also what they are and how they are constructed. This would also open a space for stories created not only by humans, but also agents occurring outside of human control and consciousness and for non-human factors influencing the creation of narratives, stories, culturally-important histories. As Michael Tollan writes: “A narrative is a perceived sequence of non-randomly connected events, typically involving, as the experiencing agonist, humans or quasi-humans, or other sentient beings, from whose experience we humans can »learn«.”

Post-anthropocentrism is not an idle call to a connection with nature, but an attempt to move past the limits of our perception – both biological and cultural. Usually, this comes down to an aporia. For, we cannot realise post-anthropocentrism outside of a post-anthropocentric perspective. However, even if this attempt might fail, I believe that the necessity to redefine the key categories and enlarge narrative theory in a less obvious direction should prove extremely valuable for a narratology oriented towards, among others, the sphere of corporeality.

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96 This term, often used in the humanities, references the actor-network theory (ANT) by Bruno Latour and, for example, Andrew Pickering or Levi Bryant, who considers the place of things and inanimate objects in (non) human world. The concept of non-human actors is one of the essential categories examined in the context of posthumanistic vision of the world, in fields such as animal studies, media studies or object oriented philosophy and in already mentioned new materialism, which offer innovative for humanist perspective of matter, inspired by the achievements of science, and above all physics. See: B. Latour, Splatając na nowo to, co społeczne. Wprowadzenie do teorii aktora-sieci, Kraków 2010, A. Pickering, The Mangle of Practice. Time, Agency and Science, Chicago 1996, L.R. Bryant, The Democracy of Objects, Open Humanities Press 2011.

97 J. Bennett, op. cit., p. xi.
