DOING THE TABOO

EXAMINING AFFECT AND PARTICIPATION IN BIOART

MASTER THESIS BY MARIE MART SOPHIA ROIJACKERS, S1481606
M.M.S.ROIJACKERS@UMAIL.LEIDENUNIV.NL
PROF.DR.ING ROBERT ZWIJNENBERG AND DR. LAURA BERTENS
ART OF THE CONTEMPORARY WORLD AND WORLD ART STUDIES,2014/2015

Table of Contents

Cover designed by Vanya Menken

Image reference: http://profiles.nlm.nih.gov/ps/retrieve/narrative/rm/p-visuals/true

Introduction

Introducing the Subject

We live in times in which biotechnological developments such as cloning, genetic modification, and tissue engineering are shaking the very foundations of our being. This radical transformation of traditional notions of life, nature, and the (human) body has evoked both hopes and fears among the general public.[1] *Bioart* is an emerging art movement that grapples with the ethical questions that the outcomes of biotechnology prompt us to consider.[2] As bioartists engage with the tools and materials on offer via biotechnology, they equally "… deal with promises, expectations and fears, including their cultural, political, social and ethical ramifications."[3] Bioart can thus provide a more visceral experience of bioethical issues and the chronic insecurity these issues cause in our deep-rooted perceptions of life, the self, and the position of humans *vis-à-vis* non-human others.[4] In addition, whilst experiencing bioart, the viewer can explore his own ethical position towards these issues. As such, it has been said that bioart democratizes and demystifies science and biotechnology.[5]

In order to truly engage their audience and provide hands-on understanding of the ethical complexity of biotechnological issues, some bioartists deploy participatory strategies. Adam Zaretsky (1968) is one such bioartist: he confronts his viewers with bioethical questions by "… helping them to do the taboo, [the] no-no thing that they are wondering about."[6] One of Zaretsky's most provocative works is the lab-performance *mutaFelch*, which was held in Kapelica Gallery in Ljubljana (Slovenia) on the 24th of November 2014. The name *mutaFelch* refers to the sexual act of sucking semen out of an anus after intercourse. During the performance, Zaretsky's main goal was to shoot raw, transgenic DNA into the nuclei of his own bodily cells derived from a mixture of "…shit, blood and sperm."[7]

The outcome of the performance was to develop living paint, or a new artistic media, with which Zaretsky could paint on canvases and on the forehead of a volunteer by using a square-shaped stamp. During the performance, the audience could participate in three ways: by contributing human and non-human elements into a blender from which the transgenic

[1] Zurr (2004), p. 2
[2] Zwijnenberg (2012), p. 2
[3] Zwijnenberg (2014), p. 144
[4] Zurr (2004), p. 2
[5] https://www.waag.org/nl/event/do-it-together-bio-13-personal-algae-production (28-06-2015)
[6] Dumitriu (2014), p. 16
[7] http://hplusmagazine.com/2011/02/06/mutate-or-die-a-w-s-burroughs-biotechnological-bestiary/ (28-06-2015)

DNA would be isolated and amplified; by assisting Zaretsky in the harvesting-process of his own bodily cells; or by volunteering as a "human canvas." In making his audience participate, Zaretsky evokes and provokes an awareness that the viewer can no longer detach himself from what is happening, but has instead become an embodied part of a dynamic system, of which neither of them "…are fully in control"[8], but are equally responsible.

How should we theorize such art—art that refuses a mere contemplative attitude and instead addresses the viewer as an active participant whose visceral responses seem to form an integral part of the work? And if such an embodied recollection is indeed what bioart is about, how might we frame this *vis-à-vis* the quotidian expectations of a gallery-goer? Which concepts and which theorists are most helpful to us in our examination of bioart?

One of the most important concepts to subsume visceral experiences into theoretical reflection is *affect*. According to philosopher Gilles Deleuze (1925 – 1995), affect allows us to understand experiences as an oscillation between a sense of activity and a sense of passivity in which everybody can affect and at the same time be affected by the other body.[9] Affect must therefore be understood as a sensation that precedes language, thought, and emotion—a "non-conscious experience of intensity" that is experienced as a visceral and intuitive mechanism.[10] According to Brian Massumi (1956), a philosopher and translator of *A Thousand Plateaus* (1980) by Deleuze and Felix Guattari (1930 – 1992), one must clearly distinguish between affect and emotions. Where the latter refers to "…individual psychological responses to an existing state of affairs", affect should be understood as "… a form of intensity that facilitates an active transformation of a state of affairs."[11] This reading of affect would focus attention on the viewer as part of a dynamic system that transforms relationships between bodies, technologies, and environments.[12]

However, in *Touching Feeling: Affect, Pedagogy, Performativity* (2003), philosopher and queer theorist Eve Kosofsky Sedgwick (1950 – 2009) reveals the danger of an essentialist reading of affect. She points out how the many attempts to universalize affect as a "unitary category" have excluded the concept from differentiated feelings.[13] According to Sedgwick, "…[t]here is no theoretical room for any difference between being, say, amused, being

[8] Mitchell (2010), p. 73
[9] *Ibidem*, p. 77
[10] Massumi (2002), p. 22
[11] Massumi (2002) as quoted in Mitchell (2010), p. 75
[12] Deleuze (2013), p. 3012
[13] Baudoin (2013), p. 13

disgusted, being ashamed, and being enraged."[14] Instead, she turns to the psychoanalytical approach of the psychoanalyst Silvan Tomkins (1911 – 1991) and urges us to examine affect as a manifold concept, consisting of different and often overflowing gradations such as shame, disgust, pain, and mourning.[15] Since bioart often evokes sensations of disgust and fear, this psychoanalytical dimension to affect is highly relevant in our quest to establish a relevant theoretical framework.

And yet, even though affect draws attention to the viewer's involvement in the work, it does not suggest issues of power that participation – both in theory and in practice – inevitably bring forward. In order to critically reflect upon power issues inherent in *every* participatory practice, I expand my affective reading of bioart by incorporating the concept of participation. This thesis thus centres on the following main research question: "How can the concepts of *affect* and *participation* provide me with a relevant framework through which we might gain a better understanding of bioart?"

Relevance

Throughout my master's course, I have observed that the discourse surrounding bioart is in need of art theoretical and philosophical approaches that subsume embodied experiences into a theoretical framework and that provide a better understanding of both the aesthetical dimension of the artwork and the bioethical issues it raises.[16] Since this thesis develops a theoretical framework for a subjective, participatory experience of bioart, it directly contributes to the emerging discourse.

Methodology

Since the field of bioart consists of many adjoining and overlapping areas, I examine the subject from multiple perspectives using interdisciplinary approaches. My theoretical framework thus combines philosophical, psychoanalytical, and bioethical readings of the concepts of affect and participation. Given that concepts change and morph as knowledge grows and travel through disciplines, they are able to alter our perception of a cultural object. In this way, or rather than existing as a fixed and delimited given, "…[the work of art] has become a living creature, embedded in new questions and considerations."[17]

However, a work of art can also *change* a concept, revealing its limitations and hinting at new perspectives. Thus, instead of using a set methodology, I draw upon Mieke

[14] Sedgwick (2003), p. 514
[15] Baudoin (2013), p. 13
[16] Zwijnenberg (2009), p. xxiii
[17] Bal (2002), p. 4

Ball's notion of *Cultural Analysis* or "concept-based methodology"[18] and conduct a meeting between the concept and the work of art in order to see how one informs the other.[19]

Since the premise of my argument is that a viewer's participatory experience forms an integral part of bioart, I consider it important that a key part of my understanding comes from situating myself within the project. Participation is crucial to my project, as it expands and critiques my theoretical framework. Something happens to the viewer when physically in the presence of artificially constructed life.[20] The material presence of life evokes a visceral response – a response that goes beyond the viewer's control and exceeds theoretical boundaries. In order to do justice to the unique capacity of bioart, I would argue that we must begin from an intimate, subjective experience.[21] I will therefore make my involvement in Adam Zaretsky's *mutaFelch* an active element in my interpretation, sometimes wearing the hat of a theorist and at other times the hat of a compliant participant.

Outline

The first chapter forms an exploration of the different conceptual lenses of affect and involves theories of Gilles Deleuze, Félix Guattari (specifically in the application by Robert Mitchell in *Bioart And The Vitality of Media*, (2010)), and Eve Kosofsky Sedgwick. The chapter concerns itself with answering the following question: "How can the concept of affect provide us with a theoretical framework from which we can approach bioart?"

In the second chapter, I apply different conceptualizations of affect to Zaretsky's *mutaFelch*. Since *mutaFelch* confronts the viewer with disgust, sexual obscenity, and fear, I consider the psychoanalytical addition to affect to be highly relevant. Consequently, I incorporate conceptualizations of disgust as theorized by Winfried Hemminghaus (1952) and Sara Ahmed (1973), Julia Kristeva's (1941) concept of abjection, eroticisms by Georges Bataille (1897 - 1962) and Ahmed's concept of fear, in addition to Deleuze's and Guattari's notion of affect, to gain better understanding into how *mutaFelch* affects its viewers. I explore the following question: "How does an affective reading of *mutaFelch* reveal the visceral mechanisms underlying the interaction between the viewer, the artist, and the artificially constructed life?"

Within the last chapter of the thesis, I shed light on the importance of participation for our understanding of bioart. I bring into conversation two concepts not generally discussed in tandem, participation and bioart, in order to critically reflect upon the power

[18] Bal (2002), p. 5
[19] *Ibidem*, p. 4
[20] Mitchell (2010), p. 70
[21] Novak (2010), p. 13

mechanisms underlying *every* participatory practice. Furthermore, I expand my affective reading of *mutaFelch* in order to examine how the concept of affect reframes our participatory experience as a hybrid sense of being engaged in the work—both actively and passively, voluntarily and involuntarily. I confront the following question: "How does the concept of participation enhance and augment our understanding of the biotechnological issues raised by bioart?"

First Chapter: *Affective Readings of Bioart*

Introduction

Bioart is an emerging art movement that deals with ethical issues that the outcomes of biotechnology have prompted us to consider. By confronting their audience with biotechnological tools and materials, bioartists expose ethical boundaries and make future scenarios more tangible.[22] Resonating with science, ethics, and politics, these artworks form a challenge for our traditional views on art and aesthetics. In order to develop a relevant approach to bioart, I draw upon a concept that is incapable of ready containment and manifests itself in the abstract: the concept of affect. As the concept has propelled divergent trains of thought within many disciplines,[23] this chapter will encounter philosophical, art theoretical, and psychoanalytical approaches to the concept. I will answer the following question: "How can the concept of affect provide us with a theoretical framework from which we can approach bioart?"

Approaching Affect

Affect is an elusive concept. Since it generally refers to the non-lingual, emotional realm, many scholars have taken the liberty to approach affect in ambiguous and often conflicting ways. Where scholars such as Silvan Tomkins favour a psychoanalytical reading, suggesting that affect is an emotional response to something external, others detangle the concept from any subjective feeling by rendering affect as a social, pre-emotional mechanism that can be transmitted and received by all elements within a temporary constellation.[24] In order to develop a point of departure, we need first to approach the concept in the most neutral way, stripping it from any theoretical underpinning, and try to assess what affect *is* and what it *does* to our understanding of art.

The term "affect" originally derives from the Latin *affectus*, which means passion or emotion.[25] However, when we consider its current use by consulting the *Oxford Dictionary*, affect refers to: "…[e]motion or desire as influencing behaviour."[26] What seems to be the dividing principle is the capacity to change a certain state of affairs—a change that can only be *felt* and not *thought*.

---

[22] Zwijnenberg (2014), p. 140
[23] Sedgwick (2003), p. 3
[24] Van Alphen (2008), p. 23
[25] *Ibidem*, p. 23
[26] http://www.oxforddictionaries.com/definition/english/affect#affect-3 (11-3-2015)

According to Gilles Deleuze, affect can thus be seen as a concept that describes the pre-emotional state where a feeling is not yet owned by the subject and therefore remains either an empty force or the "raw material" that facilitates transformation.[27] According to Deleuze, it is this transformative capacity that distinguishes affect from feelings. Where having a feeling implies "…an *evaluation* of matter and its resistances", which is only possible from a subjective and thus fixed position, and which only has the capacity to stimulate a "…physiological shift of sensory stimulation"[28] within the evaluating subject, affect has the capacity to change both the evaluator and the evaluated matter by linking them in new ways.[29]

Furthermore, Deleuze emphasizes an understanding of affect that extends beyond the individual subject. Affects are not only transmittable by humans. Objects equally have the capacity to affect and be affected.[30] This seems difficult to apprehend, as our anthropocentric view on life has rendered everything that does not belong to the subject as a passive object. This notion reveals that we identify activity with an individual intentionality, which would mean that elements that lack these qualities (such as art) could only operate on a metaphorical level.[31] According to Deleuze, we need to part with our entrenched conceptions of the subject. We are not fixed, unified subjects but "individuated assemblages" that consists of both passive and active affects. When our bodies engage with another body, object, or environment, this has a profound effect on the speed of the affects. Such an interaction thus fundamentally changes the previous constellation of our being.

> We know nothing about a body until we know what it can do, in other words, what its affects are, how they can or cannot enter into composition with other affects, with the affects of another body, either to destroy that body or to be destroyed by it, either to exchange actions and passions with it or to join with it in composing a more powerful body.[32]

Affect can thus be seen as "…a form of intensity that facilitates an active transformation of a state of affairs" and at the same time forms an integral part of the newly formed constellation.[33] Elements have the capacity to *affect* and are, at the same time, *affected.*[34]

---

[27] Baudoin (2013), p. 8
[28] Van Alphen (2008), p. 24
[29] Massumi (2002) as quoted in Mitchell, p. 75
[30] Deleuze (2013), p. 313
[31] Van Alphen (2008), p. 25
[32] Deleuze (2013), p. 300
[33] Mitchell (2010), p. 75
[34] *Ibidem*, p. 76

Affect therefore renders all matter as agential, which makes the concept relevant in understanding *why* cultural objects such as bioart can trigger such profound responses.

Affect and Bioart

Now that we have gained a better grasp of what affect is, let us focus on what the concept can *do* to our understanding of art, and in particular how it allows us to gain a better understanding of the emerging movement called bioart. As mentioned earlier, affect can focus attention on the dynamism amongst elements. As affect's origin is interaction, its application allows us to see elements – both material and immaterial – as active agents that are constantly forming new relationships with other agents. Within this relational system, every movement transforms all the elements it consists of. [35] If we follow this train of thought and apply it to art, it allows us to perceive the art object, the viewer, and their environment as agential elements that all have the capacity to affect and at the same time be affected by another.[36] Affect thus forms the condition for the viewer to be moved by a work of art.

According to Deleuze, art itself embodies the sensations or affects that stimulate thought.[37] "Sensation is what is being painted; what is being painted on the canvas is the body. Not insofar as it is *represented* as an object, but insofar as it *is experienced* as sustaining this sensation."[38] This distinction between representation and the directness of experience forms a vital element in our understanding of affect. Most canonical thinking about art is dominated by theories of signification in which a work of art operates as a sign that represents something that exceeds its materiality.[39] According to Brian Massumi, these frameworks are incomplete, since they lose the "expression event", the involuntarily intensity that shocks to thought.[40] Where representation provides the viewer with a delay within the artistic experience and allows the viewer to adopt a more distant, contemplative attitude, affect encapsulates the viewer as an embodied element. Affect thus raises awareness that the viewer is not merely an isolated, contemplating brain but also "thinks" with his bodily sensations. According to Deleuze, such an embodied encounter "… does us violence: it mobilizes the memory, it sets the soul in motion; but the soul in its turn excites thought,

[35] Mitchell (2010), p. 75
[36] *Ibidem*, p. 76
[37] Bennett (2005), p. 7
[38] Deleuze as quoted in Bennett (2005), p. 37 (my emphasis)
[39] Bennett (2005), p. 4
[40] Massumi (1996), as quoted in Van Alphen (2008), p. 22

transmits to it the constraint of the sensibility, forces it to conceive essence, as the only thing which must be conceived."[41]

Before continuing to examine how affect can assist us in a profound understanding of bioart, let us take a momentary step backward and visit a brief introduction to this movement that resonates with science, ethics, and politics. Bioart is an emerging art movement in which artists make use of the tools and procedures offered by the life sciences, which allow them to use living materials – such as tissue and bacteria - within their artistic practices.[42] According to Robert Zwijnenberg, "[m]uch bio art literally comes out of the laboratory", and is therefore imbued with the ethical issues, fears, hopes and desires that biotechnology often gives rise to.[43] As such, bioart can excel beyond the mere factual information concerning biotechnological research, and provide the viewer with a visceral experience of the ethical complexity that biotechnological issues bring forward.

The media scholar Robert Mitchell has provided us with a profound understanding and application of affect in relation to bioart. In his publication *Bioart and the Vitality of Media* (2010), Mitchell articulates an interdisciplinary theoretical position from which to explore the specific character of bioart and to come to "…an embodied understanding of media."[44] In the first stage of his argument, Mitchell attempts to bridge the dichotomy between earlier definitions of bioart, in which some consider bioart to consist of works that *conceptually* deal with biotechnology, whereas others unify the selected works according to their *media*.[45] Mitchell provides a solution to the debate by introducing the *problematic*, a Deleuzian concept which allows us to see elements in a larger "social-material field", that consists of relationships between organic and inorganic matter as well as human social institutions and relations. According to Mitchell, biotechnologies cause these relationships to shift and transform.[46] Bioart situates itself within this problematic since it has become an important element in determining biotechnological transformations of relationships.[47]

Mitchell continues to distinguish two tactics in how bioartists seek to establish new relationships with the problematic. The first Mitchell calls the *prophylactic tactic*, in which artists critically reflect upon biotechnology by positioning themselves outside of the problematic. They achieve this by choosing a different, often traditional, media to *represent* the contested issues. According to Mitchell, *The Farm* (2000) (Fig.1) by Alexis Rockman is

[41] Deleuze (1964), p. 166
[42] Zwijnenberg (2009), p. xviii
[43] Ibidem
[44] Mitchell (2010), p. 15
[45] See the general argument in the first chapter of Mitchell (2010).
[46] Mitchell (2010), p. 26
[47] *Ibidem*, p. 27

one of the clearest examples of the *prophylactic tactic*, since it consists of a painting that depicts a future in which biotechnologies have allowed us to create "consumer-friendly" plants and animals.[48] As *The Farm* is painted and thus *represents* its subject, "…[it] seeks to establish a protected space for the viewer, thereby enabling a 'critical' perspective on biotechnology by means of re-presentation."[49] The *vitalist tactic*, by contrast, consists of a more direct approach in which artists deal with biotechnological issues by situating their work within the problematic. Rather than representing the subject matter, their work *presents* biotechnology by employing its tools and materials as artistic media and "…immerses gallerygoers *within* alternative practices of biotechnology."[50]

Although this distinction between the two tactics marks the difference between "representation" and "presentation", and thus seems to replace one dichotomy with another, these categories are not as fixed as they seem. According to Mitchell, representation can also be employed to serve a *vitalist tactic*.[51] Catherine Wagner's *-86 Degree Freezers (Twelve Areas of Crisis and Concern)* (1995) (Fig. 2), for instance, consists of a photographic image of freezers containing cell-samples that have been frozen in order to store the genetically modified cells or slow down their biological process. As there are no "real" freezers, the work can be considered a representation of the actual objects. However, according to Mitchell, "… the vitalist aspect of Wagner's image is due in greater part to the fact that these photographs align the embodied immobility of a viewer who stands, gazing at the work, with a site of embodied stasis within the laboratory (i.e., the freezers with their frozen samples)."[52] According to this view, Wagner's work can be understood as transmitting the photographic state of stasis of the biological samples, to the viewers embodied reality of standing passively in front of the work. The work thus links the depicted space to the gallery space and, by so doing, evokes in the viewer a sense of urgency, since if this state of stasis were to be interrupted by a sudden power outage or bioterrorist attack, the possible effects of these life forms entering the environment could hypothetically reach the viewers' space.[53]

This is where affect comes in. As previously mentioned, the *vitalist tactic* in bioart has the potential to subsume the viewer into the problematic. By linking the spaces of the viewer and the work of art, the work forges a new connection within the problematic of biotechnology. And as the viewer's body becomes linked in new ways to its environment,

---

[48] Mitchell (2010), p. 16
[49] *Ibidem*, p. 27
[50] *Ibidem*
[51] *Ibidem*, p. 28
[52] *Ibidem*, p. 30
[53] *Ibidem*

the viewer becomes "…a vector for transformation". According to Mitchell, one of the most important characteristics of bioart is that it "…enable[s] an experience of simultaneous activity and passivity, encouraging in 'spectators' a bodily sense of becoming (sometimes unwilling) participants and framing them as embodied parts of larger, dynamic systems, of which neither they nor the artists are fully in control."[54] In this passage, Mitchell clearly draws upon Deleuze's reading of affect that renders both objects and subjects as relational and agential elements within a dynamic system.

This becomes clear in the example of *Transgenic Bacteria Release Machine* (2001) (Fig. 3) by Beatriz Da Costa and the Critical Art Ensemble, as exhibited at the Museum of Natural History in London. The installation consists of ten covered petri dishes, of which one contains transgenic E. coli bacteria. A robotic arm can be activated by a red button, which - when pressed - randomly opens one of the covers. The installation thus mimics a game of Russian roulette, leaving it up to chance whether the viewer unleashes the E. coli bacteria into the air of the exhibition space.[55] As most installation art, *Transgenic Bacteria Release Machine* emphasizes the body of the viewer, who is invited to walk around the installation and press the red button.[56] Yet, as Mitchell aptly points out, the viewer's embodied capacities are also addressed in a more passive, uncontrollable manner. *Transgenic Bacteria Release Machine* evokes an awareness that the bacteria on the viewer's body are also responding to their environment.

> By positioning the air in the gallery space as something that might link the E. coli in the petri dish with the inside of my body, *Transgenic Bacteria Release Machine* emphasizes a sense of being within a more general medium that connects the biology of my body with other forms of life.[57]

On this bacterial level, the mechanisms of affect are no longer merely conceptual but suddenly become biological facts. An uncertainty arises concerning whether our bodies are in fact exposed to artificially engineered life, and if there is any true risk of being infected.[58] According to Mitchell, it is this "suspension of certainty"[59] that allows bioart to affect its viewers. *Transgenic Bacteria Release Machine* evokes a sense of reality, which – for a moment - transforms our bodies into sites of bacterial life forms, which are capable of interacting with their environment, and which are part of a bigger living biotope. The gallery suddenly

[54] Mitchell (2010), p. 73
[55] *Ibidem*, p. 69
[56] *Ibidem*, p. 71
[57] *Ibidem*, p. 72
[58] *Ibidem*, p. 78
[59] *Ibidem*, p. 79

becomes a biotope in which all the present elements have the capacity to affect and at the same time be affected by others.

The Psychoanalytical Dimension of Affect

Within the first part of this chapter, I have demonstrated that a Deleuzian understanding of affect should be seen as a pre-subjective intensity and should not be confused with feelings and emotions. Psychoanalyst Silvan S. Tomkins' theory resonates with Deleuze's reading in that both assert affect as non-intentional, visceral, and automatic.[60] In Ruth Ley's discussion on Tomkin's understanding of affect, we read how Tomkins continues this train of thought by claiming that affects operate independently of cognitive intension. "Rather, they are rapid, phylogenetically old, automatic responses of the organisms that have evolved for survival purposes and lack the cognitive characteristics of the higher-order mental processes."[61] This view clearly posits a categorical difference between affects and cognition, which leads us to an understanding of affects as "…only contingently related to objects in the world; our basic emotions operate blindly because they have no inherent knowledge of, or relation to, the objects or situations that trigger them."[62] Affect thus only unfolds itself within the affected subject and interacts with the affective object. According to Ernst van Alphen, this is why a psychoanalytical approach is not helpful within our attempt to understand why cultural objects can affect their viewers. When considering affect as a psychological state, one must necessarily eliminate objects as capable of transmitting affects, as it does not make sense to ascribe psychological states to objects.[63]

However, what I consider particularly significant in our quest to establish a relevant framework for bioart is that Tomkins develops a taxonomy of different affects. Rather than rendering affect as a single intensity, he distinguishes several basic affects of which their specific mechanisms depend on a scale of intensity.[64] However, as queer theorist Eve Kosofsky-Sedgwick demonstrated in her article "Touching Feeling: Affect, Pedagogy, Performativity" (2003), we must avoid an essentialist understanding of affect if we choose to differentiate between different affective categories.[65] She points out how the many attempts to universalize affect as a "unitary category" have excluded the concept from differentiated feelings. According to her, "…[t]here is no theoretical room for any difference between

[60] Leys (2011), p. 437
[61] *Ibidem*
[62] *Ibidem*
[63] Alphen (2008), p. 24
[64] *Ibidem*
[65] Baudoin (2013), p. 13

being, say, amused, being disgusted, being ashamed, and being enraged."[66] She also criticizes theorists for developing a unitary concept of affect that is excluded from feelings and emotions, since when affect is treated as a universal condition; there is no theoretical room for difference. Instead, in turning to the psychoanalytical approach of Silvan Tomkins, she urges us to examine affect as a manifold concept consisting of different and often overflowing affects like shame, disgust, pain, and mourning. In doing so, Kosofsky-Sedgwick demonstrates how an affect theory [proves to be] such a useful site for resistance to heterosexist teleogies."[67]

As bioart often evokes responses of disgust and fear, this psychoanalytical addition allows us to differentiate amongst various affects. In order to examine whether a differentiated approach to affect can still provide us with a relevant reading of bioart, I will focus on the concept of "… one of the most violent affects of the human perceptual system": disgust.[68] According to Mitchell, disgust is mostly used to simplify the viewer's experience of bioart.[69] However, according to Leon Kass, who is known for his conservative take on bioethics, disgust is "…often the emotional bearer of deep wisdom beyond reason's power fully to articulate it."[70] Correspondingly, when we are confronted with bioartworks that employ contested materials and instruments, "…we intuit and feel immediately and without argument the violations of things we rightfully hold dear."[71] According to this view, disgust allows a viewer to experience these violations, and thus stimulates awareness of this "deep wisdom" that underlies our rational capabilities. Disgust can thus be seen as a subconscious and visceral choice to *refuse* an object or situation. According to Winfried Menninghaus, the experience of unwanted nearness "…or intrusive presence is the fundamental schema of disgust."[72] Disgust thus functions as a physical defence-mechanism that preserves the self by rejecting the disgusted other.

Such a rejection is not absolute. As Sara Ahmed claims in *The Cultural Politics of Emotion* (2004), "…to be disgusted is to be *affected* by what one has rejected".[73] In her attempt to answer the question of what it means to designate something as disgusting, Ahmed argues that disgust is ambivalent, since it also involves (sexual) desire and attraction. Even though a confrontation with something disgusting is repulsive, there is something within that object or person that never fails to capture our attention. Ahmed

[66] Sedgwick (2003), p. 514
[67] *Ibidem*, p. 503
[68] Menninghaus (2003), p. 1
[69] Mitchell (2010), p. 74
[70] Kass, Leon (1997) as quoted in Mitchell (2010), p. 74
[71] *Ibidem*
[72] Menninghaus (2003), p. 1
[73] Ahmed (2004), p. 86

describes this paradoxical mechanism of disgust as the involuntarily movement of pulling away, "…as if our bodies were thinking for us" and at the same time being drawn towards the thing that disgusts, a force that "…opens [our bodies] up to the bodies of others."[74] This "opening up" results in a linkage between disgusting element and disgusted subject, a linkage that destabilizes the boundary between them. Therefore, an encounter with disgust can feel like an involuntarily closeness. According to Ahmed, being disgusted may feel like an offence to bodily space in general, as the boundaries that protect us from the disgusting object no longer seem sufficient. However, this does not explain why some objects threaten boundaries and others do not.[75]

In order to answer this question, Ahmed draws upon Julia Kristeva's notion of abjection as developed in her *Power of Horror* (1982). When confronted with disgusting materials like vomit, shit, puss, and degrading corpses[76], the subject is both attracted to and repulsed by them, because these elements represent both "me" and "not me."[77] According to Kristeva, abjection is evoked by a profound insecurity of the not: "…it seeks to secure "the not" through the response of being disgusted."[78] What causes this insecurity is a realization that the disgusting object is both the self and not the self. The abject object is thus the embodiment of the boundary that distinguishes us from others.[79]

Now let us flesh out this theory by engaging with a research project that is known to have evoked responses of disgust and abjection: Cecilia Westbrook's attempt to make yoghurt from her own vaginal bacteria. By using three bowls and filling one with yogurt made with traditional culture, one with plain milk and one with milk containing her "bodily contribution", and letting them blend overnight, Westbrook succeeded in producing a decent amount of yoghurt that she recalls to have eaten with some blueberries.[80] Vaginal flora contains the organism lactobacillus (or probiotic) that, when consumed orally, protects the gut and genitalia. And aside from health purposes, Westbrook claims, "…there's a beauty in connecting your body to your food and exploring the power that your vagina has."[81] Yet, it is precisely this connection with our bodily fluids that we find difficult to accept. The idea of eating something that has been produced by the vagina causes our stomach to turn. Kristeva explains this visceral mechanism as the body's refusal to

---

[74] Ahmed (2004), p. 86
[75] *Ibidem*
[76] Athanassoglou-Kallmyer (2003), p. 292
[77] *Ibidem*
[78] Ahmed (2004), p. 86
[79] Kristeva (1982), p. 4
[80] http://www.huffingtonpost.com/2015/02/11/vagina-yogurt_n_6661792.html (14-06-2015)
[81] http://motherboard.vice.com/read/how-to-make-breakfast-with-your-vagina (14-06-2015)

internalize what has been cast out.[82] Having been excluded from the body, such objects demarcate what is self and what is other. In her description of dung, one of the abject bodily wastes, she writes: "If dung signifies the other side of the border, the place where I am not and which permits me to be (…) [it] is a border that has encroached upon everything. It is no longer I who expel, 'I' is expelled. The border has become an object."[83]

As such, the vaginal yogurt functions as an objectified border.[84] When we internalize our boundaries, we feel as if we are turning our bodies inside out.[85] The viewer can no longer demarcate where the self ends and the yogurt begins, and thus seeks to re-define these boundaries by rejecting the other body. This paradoxical mechanism of a process of jettisoning what seems to be part of oneself is inherent in abjection. Furthermore, as Kristeva claims in her *Power of Horror*, the rejected material remains forever at the borders of our identity, "… from its place of banishment, the abject does not cease challenging its master."[86] We need this lurking threat because what can destroy our identity can at the same time assist us in defining it.

The second project that evokes the paradoxical mechanism of repulsion and attraction is *Semi-Living Worry Dolls* by Tissue Culture and Art Project (TC&A). TC&A consists of a collaboration between the bioartists Oron Catts and Ionat Zurr whose main goal is to manipulate living materials by using the tools and techniques of modern biological research, "…in order to sharpen questions arising from the utilization of these new sets of tools."[87]

Semi-Living Worry Dolls (Fig. 4) were the first tissue-engineered sculptures to be presented *in vivo*. In an entry worth quoting at length, we read:

> [b]y staging evocative encounters with the semi-living in the space of the gallery, Catts and Zurr state that their primary motivation is to reimagine the ontological status of these entities outside of biocapitalist logics of instrumentalization and consumption, and thus to challenge the audience's perceptions and relations to their own and other (human and nonhuman) bodies.[88]

According to this passage, a confrontation with the semi-living material of the sculpture has the capacity to transform the relationship between viewer and object. However, what the authors fail to address is how disturbing such an evocative encounter can be. Since the

[82] Kristeva (1982), p. 3
[83] *Ibidem*
[84] *Ibidem*, p. 4
[85] Ahmed (2004), p. 86
[86] Kristeva (1982), p. 2
[87] Catts (2002), p. 365
[88] Lapworth (2013), p. 86

material of the object reminds the viewer of human tissue and at the same time clearly consists of something non-human (Fig. 5), the encounter with *Semi-Living Worry Dolls* destabilizes the viewer's sense of his bodily boundaries. No longer able to demarcate where the "self" ends and the object begins; the viewer seeks to re-define these boundaries by rejecting the other body. I thus conclude that both abjection and disgust allow us to gain a better understanding of *how* bioart causes the viewer to feel drawn into a linkage from which we can no longer withdraw ourselves so easily.

Conclusion

In this chapter, I have juxtaposed and synthesized theories from philosophical, art theoretical, and psychoanalytical approaches in order to propose my own approach for how we might better understand affect. In addressing the question: "How can the concept of affect provide us with a theoretical framework from which we can approach bioart?", I have demonstrated that a Deleuzian reading of affect addresses the viewer as embodied and emplaced within a relational system in which every element has the capacity to act upon and at the same time be affected by other elements.[89] Affect thus focuses attention on the dynamism amongst elements and challenges us to theorize art beyond theories of representation and signification that we inherit from the humanities.[90] Both Tomkins and Sedgwick favour an approach of affect as a manifold concept consisting of different, and often overflowing affect such as pain, disgust and fear.[91] This psychoanalytical addition of affect allows us to gain a better understanding of *why* bioart can evoke strong sensations of disgust and abjection and how being in the presence of something that lives can reconfigure relationships between the viewer and artwork, between subject and object and between the self and the other.

[89] Mitchell (2010), p. 75
[90] Bennett (2005), p. 4
[91] Baudoin (2013), p. 13

Second Chapter: *An Encounter with mutaFelch*

Introduction

Adam Zaretsky (1968) is a bioartist who confronts his viewers with bioethical questions by providing a hands-on experience of biotechnological practices and "… helping them to do the taboo, [the] no-no thing that they are wondering about."[92] In his quest to reveal and challenge bioethical boundaries, Zaretsky situates himself "…on the edge of the legally permissible."[93] Since Zaretsky operates both as a scientist – having worked as a research affiliate in Arnold Demain's Laboratory for Industrial Microbiology and Fermentation in the Massachusetts Institute of Technology's Department of Biology – and as a media-artist, he is able to explore the intersection between art and science. His projects are mostly comprised of a self-installed yet biologically self-contained laboratory environment, in which Zaretsky introduces his audiences to genetically modified life.[94]

As previously demonstrated, bioart often evokes responses ranging from fear or disgust to fascination, wonder, or lust; thus, in order to develop a relevant theoretical framework, we must expand a mere philosophical understanding of affect via a psychoanalytical addition that allows us to differentiate amongst these specific sensations. In this second chapter, I will therefore explore the conceptual mobility of affect by applying it to Zaretsky's *mutaFelch* and examine how one informs the other. I will first give an outline of *mutaFelch*, after which I will focus on three important aspects in relation to affect. I will explore the following core question: "How does an affective reading of *mutaFelch* reveal the visceral mechanisms underlying the interaction between the viewer, the artist and the work of art in *mutaFelch?"*

mutaFelch

mutaFelch is a two-hour lab-performance that was held in *Kapelica Gallery* in Ljubljana (Slovenia), on the 24th of November 2014, and in which Zaretsky strove to shoot raw DNA into the nuclei of his bodily cells. The raw DNA was isolated through a process in which the audience was asked to donate human and non-human elements, such as earwax, sauerkraut juice, soil, a dying jellyfish, fresh fruit, and a fragment of a skinned sheep's head, which they placed into a blender and blended until the mixer began to smoke (Fig. 6).

---

[92] Dumitriu (2014), p. 16
[93] https://waag.org/en/news/errorarium-van-adam-zaretsky (31-3-2015)
[94] Willet (2006), p. 5

The audience was asked to help pour the "extremely thin hybrid cell soup" on several muslin canvases to filter out the pulp and to firmly knead it until only the malleable material remained (Fig. 7). Zaretsky declared both the stained muslins and the clay-like pulp to be works of new media art that needed to be exhibited in Kapelica Gallery (Fig. 8). He continued by adding liquid soap to the remaining liquid because "…[t]he soap lyses the cells with lye. Lye, which is the grease cutting agent in soap, breaks open cell membranes and bursts the nucleus of most cells."[95] After waiting a short while, the cell and the nuclear membranes had "… broken apart, as well as all of the organelle membranes, such as those around the mitochondria and chloroplasts."[96] In order for all the DNA strands to detangle from the remaining proteins, Zaretsky added contact lens cleaning solution, as it contains enzymes to cut up the DNA and cooled ethanol and alcohol, which allows for the liquid to divide itself in two layers: "…all of the grease and the protein that we broke up in the first two steps stay in the unnameable layer and the lighter DNA rises up into the alcohol layer (Fig. 9)."[97]

The second phase of the performance consisted of extracting a mixture of Zaretsky's bodily fluids - his semen, blood, and gut microbiota - a mixture Zaretsky calls "felch". The word "felch" is derived from the verb "felching," which refers to the sexual act of sucking semen out of an anus after intercourse.[98] "Felching" has often been visualized by underground cartoonists such as Robert Crumb and Steve Clay Wilson and first appeared in scientific literature in 2005, in *Sex Changes* by the psychoanalyst Mark Blechner who discusses "felching" as a sexual phenomenon that marks the crossover between disgust and sexual excitement.[99] In *mutaFelch*, the "felch" consisted of a mixture of "… shit, sperm and blood". The "felch" was engaged in the following way: the blood was taken out of a vein in Zaretsky's arm, the sperm was collected prior to the performance, and the E-coli was gained by pumping a mixture of the blood and the sperm into Zaretsky's rectum, by using a barrel pump. The "felch" mixture – which eventually left Zaretsky's body through his anal orifice - was collected and mixed with the raw DNA and gold nanoparticles and divided in several metal petri dishes, as detailed below.

In the third stage of the performance, Zaretsky reintroduced the hybrid DNA into the genomic proximity of the "felch" mixture, by applying DIY "biolistic" techniques. Biolistic refers to a technique through which cells can be impregnated by other biological

---

[95] Zaretsky, Adam, 'Description of Food Art DNA: Hybrid DNA isolation. An All Ages Bioart Lab', Document sent to Marie Mart Roijackers by Sandra Sajovic (Kapelica Gallery) on 27-11-2014
[96] *Ibidem*
[97] *Ibidem*
[98] https://en.wikipedia.org/wiki/Felching (29-06-2015)
[99] Blechner (2005), p. 133

molecules. In order to penetrate the cell walls, nanoparticle sized micro-carriers of gold or platinum are coated with raw DNA or RNA.[100] In furtherance of the process, a gene gun was used to accelerate the particles to extreme speeds, which cause the DNA to enter the cell membrane and thus "… genetically infect cells or whole organisms with foreign DNA by aiming the barrel of the gun and firing."[101] Since Zaretsky's funder pulled out just before the gun purchase due to "artistic trust issues"[102], Zaretsky developed a Do-It-Yourself adaption of this technique. In this process, the cells and the DNA– together with gold nano-particles – are placed in metal petri dishes. In order to set off the cell collision, Zaretsky drilled on the dishes by using a jackhammer and sledgehammer (Fig. 10). According to Zaretsky, the speed and pressure was needed to have the gold particles moving fast enough to break the inner and outer membranes of a cell. And when asked to reflect upon his choice for the jackhammer and sledgehammer, Zaretsky responded: "If there is anything worth saying here that is not heterosexist, it would be to show the libidinal need to handle life roughly, to rape nature and force it to your designs… to not lift the veil lightly and to glean secrets from pain (Fig. 11)."[103]

Whether the DNA finds its way through the cell membranes of the E-coli remains a mystery: in contrast to laboratorial research, nothing can be verified. According to Zaretsky, the "…[bombarded] genes are in the raw isolated DNA but not annealed to viral heads."[104] So, although the raw, naked hybrid DNA is introduced into the nucleus of the blood cells, as well as through the membranes of the hind gut bacterial microflora that is non-nucleated (as in bacteria), as well as the sperm germline genetic payload, the question of efficient transgene infection (into the anal microbiome, the blood cells and the human germline) is suspect.[105] Zaretsky seems to emphasize this uncertainty by explicitly using opaque, metal petri dishes – instead of the common transparent ones, which are designed to *reveal* invisible biological processes. As Zaretsky's petri dishes do not reveal any evidence of their internal workings, they can be seen as black boxes of which the *output* cannot be controlled. According to Zaretsky:

> …not knowing doesn't mean there's no effect, it just means there's no control … an aesthetic that's not about control and repeatability, the aesthetic of diversity, which in many ways exemplifies biology itself –

[100] Zaretsky (2008), p. 2
[101] *Ibidem*, p. 1
[102] Personal Correspondence with Adam Zaretsky, 17-06-2015
[103] *Ibidem*
[104] Personal Correspondence with Adam Zaretsky, 14-03-2015
[105] *Ibidem*

mutagenically stirring the genomes, as they exist right now. Not for the sake of reordering in the name of utility.[106]

With this quote, Zaretsky touches upon a fundamental difference between science and art: the question of utility. Together with values such as efficiency and logic, utility still frames our scientific discourse. Whether it takes on the guise of contributing to cancer research, or of developing *google brain*, all scientific research can be reduced to the improvement of human life. In stark contrast, the fundamental schema of art is its refusal to be incorporated in the domain of the useful.[107] This tension between the values of art and science is a constant motif: Zaretsky calls upon it to reconcile the specificity of bioart, its connections to science rhetoric, and the resonant connections to other artistic traditions.

Within the final stage of the *mutaFelch* performance, Zaretsky declared the "felch" to have become living paint, a new artistic media that could be painted on both canvases and the faces of human volunteers. In order to paint with the "felch", Zaretsky used different shaped stamps (Fig. 12, Fig. 13). For the face of one of his participants, Zaretsky used a square-shape stamp that, according to him, referenced (NSK) *Neue Slowenische Kunst*, a political and controversial art collective that is known for their artistic resistance against totalitarian systems and nationalist regimes, by over-identifying with them. Characteristic of their work is the use of several iconic and ideological signs, such as Malevisch's *black square*. By juxtaposing these signs, the NSK reflects upon their apparent neutralism and reveal how these signs "…function as forms that have become inert, that operate as if they are 'pure objects', and that can be resignified in and against Soviet realist and nationalist socialist art."[108] According to the psychoanalyst Ian Parker (1956) who has studied the NSK through the lens of Slavoj Zizek psychoanalysis, the concept of overidentification draws attention to "… the way the overt message in art, ideology and day-dreaming is supplemented by an obscene element, the hidden reverse of the message that contains the illicit charge of enjoyment." [109] I argue that this given context helps us to understand Zaretsky's artistic strategy as a way to overidentify with elements that we associate with scientific research. By using the very materials, tools, and technologies of the Life Sciences, and situating these elements within an *artistic* context, Zaretsky problematizes their apparent neutrality, objectivity, and utility. And by adding elements that can be considered as disgusting and obscene, Zaretsky reveals science's "hidden reverse".

---

[106] Dumitriu (2014), p. 21
[107] Gabriel (2013), p. 2
[108] Parker (2007), p. 5
[109] *Ibidem*

Affective Reading of *mutaFelch*

Let us now return to the concept of affect and examine how it provides us with a relevant theoretical framework through which we can gain better understanding of *mutaFelch.* As I mentioned in the first chapter, a Deleuzian reading of affect draws attention to the dynamism amongst elements. And within a dynamic system, each element – both material and immaterial - has the capacity to affect and at the same time be affected.[110] Nothing stands outside this relational system. Following this train of thought, all elements of *mutaFelch* – the scientific tools, the living paint, the viewer, the artist, and the environment of the gallery - should be considered as agential and equally possessing the capacity to affect one another.

Such a view clearly resonates with Mitchell's conception of the *vitalist tactic*, which has fundamental consequences for the traditional oppositions between viewer and art or between subject and object.[111] As previously discussed, most canonical thinking about art is dominated by theories of signification in which a work of art functions as a sign that represents an external concept.[112] According to this view, art thus provides a safe space, from which the viewer can adopt a more distant, contemplative attitude, thus locating the affective potentiality of art within the mind and positioning the viewer outside the work. However, by inviting his viewers to participate within the performance, Zaretsky radically denies such an attitude to art. The participants are encouraged to physically move through the laboratory setting and are thus addressed as embodied elements of the work itself: every individual choice or movement determines the scope and accordingly the meaning of the work.

At the same time *mutaFelch* encourages a dimension of embodiment that goes beyond the control of the viewer.[113] Since Zaretsky's main goal is to create a hybrid organism by using DIY gene gun technology, there exists a hypothetical chance that the viewer is indeed exposed to transgenic bacteria. As Mitchell has argued in his *Vitality of Media*, "…the gallery suspends the distinction between representation and reality, with the result that it becomes entirely plausible that works ⌈…⌋ do not simply represent, but in fact *present*, microorganisms to gallerygoers."[114] Some viewers may therefore be under the impression that by opening the metal petri dishes, Zaretsky has unleashed the bacterial life within the gallery space. This raises an awareness of the viewer's bodily vulnerability or "corporeal

[110] Mitchell (2010), p. 76
[111] *Ibidem*, p. 28
[112] Bennett (2005), p. 4
[113] Mitchell (2010), p. 77
[114] *Ibidem*, p. 90

openness" to other elements within the gallery space and the viewer's dependency on the choices of others.[115] Affect thus focuses attention on the continuum between affecting and being-affected, which raises awareness that the viewer can no longer detach himself from what is happening, but has instead become an embodied part of a dynamic system, "…of which neither [the viewer] nor the artis[t] are fully in control."[116]

And at the same time, this awareness of the bacterial aspect of life draws new linkages between human and non-human bodies. Let us further consider the first stage of the experiment, which consisted of the isolation of the hybrid DNA and where Zaretsky invited the viewer to donate both human and non-human ingredients in a blender. Through this process, Zaretsky evoked a realization that DNA, "the blueprint of life", was not a strictly human thing. Neither was it a clean, isolated helix shape. On a material level, life appeared to be a primeval porridge in which there were no visible distinctions between human and non-human bodies (Fig. 14). Due to the viewer's active participation within the construction of the hybrid DNA, the viewer had the ability to affect the composition of a form of life that did not exist prior to the experiment. This ability to affect these novel life forms adds an ethical dimension to our reading of *mutaFelch*. According to the Joanna Zylinska, a cultural theorist who specializes in bioethics, in confronting the viewers with their own "ethical edge" by providing them with a hands-on experience of the contested biotechnological practices, Zaretsky urges us to rethink and expand our anthropocentric formulation of the concept of "life."[117] Affect allows us to examine these indefinable life forms as being linked to our own bodies, and "…shows that a straightforward normative valuation becomes problematic in a network from which the human/the artist does not disappear as an agent altogether but in which agency becomes more distributed, composite and networked."[118]

As Robert Zwijnenberg has aptly put it in his description of the work of Patricia Piccinini, a sculptor who uses silicon and fibre glass to make life-like envisions of the possible outcomes of biotechnology: "[w]e are called upon to look and behave towards living beings and material in a way to which we are not accustomed. We have to find an ethical attitude compatible with an aesthetic that confronts us with tangible, living entities that are beyond the realm of the known."[119] Zaretsky confronts us with these issues by bringing the matter overwhelmingly close and making us participate in its construction.

---

[115] Mitchell (2010), p. 77
[116] *Ibidem*, p. 73
[117] Zylinska (2009), p. 161
[118] Shildrick (1997) as quoted in Zylinska (2009), p. 167
[119] Zwijnenberg (2014), p. 142

We can no longer wash our hands in innocence but are drawn into a linkage from which we can no longer withdraw ourselves easily.

Disgusting Matter

I have argued that the psychoanalytical dimension of affect allows us to gain a better understanding of *why* bioart can evoke strong sensations of disgust and abjection. As Sedgwick has demonstrated within her theoretical exploration of Thomkins' psychoanalytical approach of affect, the concept should be examined as a manifold concept consisting of different and often overflowing affects.[120] We should therefore avoid an essentialist reading of affect that would approach disgust as a unified concept, but instead allow theoretical room for conflicting and overflowing affects.[121]

When Zaretsky harvested his own body in order to engage the "felch" materials, the process was deeply disturbing for viewers, since he was taking materials *out* that should have been *in*, and injecting materials *in* that should have been *out* – materials from ourselves that we do not want to see because they remind us of our own materiality and therefore deny our subjectivity. According to Kristeva, bodily fluids such as feces and semen provoke disgust because of the subject's inability to accept the materiality of his body.[122] Bodily leakage proves the potentiality of the subject's mortality.[123] In addition, by taking these materials *out* and putting them back *in*, Zaretsky was destabilizing his own bodily boundaries. And as he poured the "felch" into the different metal petri dishes, his body no longer functioned as an enclosed unity but instead became more defragmented. The fluidity of Zaretsky's bodily boundaries made the presence of his body overwhelmingly close to the viewer, framing him as an involuntary voyeur (Fig. 15). Suddenly, this boundary-less body invaded the viewer's safe, contemplative space, and there was no escape; the viewer was drawn into something he did not want to be part of. According to the philosopher Winifried Menninghaus, this experience of the "unwanted nearness" or "intrusive presence" of the disgusting body marks the fundamental mechanism of disgust.[124] Disgust thus destabilizes boundaries between the viewer and the artist, and according to Zaretsky, "[w]e need this fluctuating gradient of nausea and rejection to arrive at the limits of our cognitive ability…"[125]

---

[120] Baudoin (2013), p. 13
[121] *Ibidem*
[122] Kristeva (1982), p. 3
[123] *Ibidem*
[124] Menninghaus (2003), p. 1
[125] Zaretsky (2012), p. 55

Eroticism and the Orbit of Desire

According to Sara Ahmed there is more to disgust than the urge to pull away. In the case of disgust, there is something within an object or person that never fails to capture our attention. She continues that disgust paradoxically evokes an attraction that draws the viewer closer or "…opens [our bodies] up to the bodies of others" and thus draws a linkage between a disgusting element and a disgusted subject.[126] According to Menninghaus, this attraction can be best understood as an erotic desire that aims "…at the overcoming of distance [and the] establishment of a union."[127]

In order to probe deeper into this erotic aspect of disgust, I turn to the philosopher whose theories and poetry are imbued with a desire "…to bring all phenomena down to the same level of direct physical experience"[128] and who has re-established the concept of eroticism within philosophical discourse: Georges Bataille. In his famous work *Death and Sensuality* (1962), Bataille conceptualizes the erotic as the desire to move beyond the limits of our subjectivity. He continues that within the erotic "…the being consciously calls his own existence in [to] question."[129] By deliberately losing himself within the erotic affect, the subject identifies himself with the desired object and thus loses his self-awareness. We can therefore read Bataille's eroticism as a force that "…destroy[s] the self-contained character of the participators as they are in their normal lives."[130] By "normal lives," Bataille understands the culturally accepted state which is drenched with moral codes and taboos, and in which the rational self reins. Bataille's eroticism thus breaks down established patterns that are installed to separate one individual from another.[131]

Within *mutaFelch*, eroticism seems a constant motive. According to Zaretsky, the experiment that the work embodies should be considered as a new reproduction technology, or "some kind of fucking."[132]

> When you are making a transgenic organism, you are actually injecting genes that reproduce later on, multiple generational reproductions. This is like a biological definition of sex. I like to look into what the desire is behind the techno-sexual process. If you get the genes into an organism, and get the genes into the organisms kids, you are fucking the organism.[133]

---

[126] Ahmed (2004), p. 84
[127] Menninghaus (2003), p. 1
[128] http://www.theguardian.com/artanddesign/2006/apr/23/art (16-06-2015)
[129] Bataille (1962), p. 31
[130] *Ibidem*, p. 17
[131] *Ibidem*, p. 18
[132] Personal Correspondence with Adam Zaretsky, 22-11-2014
[133] https://www.indiegogo.com/projects/vastal-vivoarts-school-travel-fund (15-04-2015)

Even if this textual reference were to be missing, Zaretsky's costume – a lab coat consisting of two holes through which his naked stomach and buttocks are visible – immediately raises an erotic connotation (Fig. 16). Even Zaretksy's gestures and facial expressions, for example his protruding tongue whenever he says something provocative, his shameless flirtatiousness towards some members of the audience and the excessive sweat dripping from his forehead, seem to confront the viewer with his erotic excitement. In doing so, Zaretsky urges us to draw a linkage between eroticism and science, a relationship that he believes is less dichotomous than it seems. To draw science back into the orbit of "desire"[134], or the erotic, Zaretsky seems to strip the biotechnological reproduction procedure from core scientific values like utility, objectivity, and cleanliness, and places it within the realm of life itself.

Bataille argues that the process of stripping something naked or nakedness in general can be considered as "…a state of communication revealing a quest for a possible continuance of being beyond the confines of the self."[135] According to Bataille, it is within this state of nakedness or bodily openness that we gain a feeling of obscenity. "Obscenity," he argues, "is our name for the uneasiness which upsets the physical state associated with self-possession, with the possession of a recognized and stable individuality."[136] Thus, by showing both the nakedness of his body, and revealing the naked essence of gene-gun technology, Zaretsky deliberately evokes the obscene. The viewer suddenly finds himself within a prolonged experience of the taboo in which he can no longer rely on his familiar attitude towards art. And it is exactly this terrain of the taboo where Zaretsky wants his audience to be.

Dangerous Art

Fear, like disgust, is usually experienced as an unpleasant sensation. According to Ahmid, "…fear involves an *anticipation* of hurt or injury."[137] It transports us into the future as an intense, physical response in the present. When confronted with the feared, our bodies pull back or paralyze in order to protect ourselves. Where the previous affects caused for bodies to open up to others, or even become the other body, fear renders bodily openness as dangerous. As such, fear justifies violence against others: their presence is felt as a threat to

[134] Sedgwick (1985), p. 1
[135] Bataille (1987), p. 9
[136] *Ibidem*, p. 18
[137] Ahmed (2004), p 65

a stable self, or as Ahmed phrases it, " …fear works by establishing others as fearsome insofar as they *threaten to take the self in.*"[138]

When we consider the last stage of the *mutaFelch* performance through the lens of fear, the squared-shape stamp can be interpreted as a destabilization of boundaries between Zaretsky and the volunteer human canvas. By this stage, the "felch", containing the bodily nuclei, the hybrid DNA, and the golden nanoparticles, has gained an aura of danger - *danger* because it remains unclear whether the paint is, in fact, *living* and what the effects might be for the viewers who are exposed to this artificial life. By stamping the "felch" on the forehead of a viewer, Zaretsky brings the contested matter overwhelmingly close. The skin, which usually protects "me" from what is "not me," suddenly feels transparent. And this confrontation with the viewer's corporeal limitlessness evokes a visceral fear of non-existence. The viewer suddenly realizes that nothing can be trusted. We do not know whether he carries diseases with him and if the "felch" can *infect* the viewer's body. And within this vacuum of fear and uncertainty, the viewer establishes new boundaries defining the other as fearsome for the self.

Within art in general, there is a collective assumption that art is safe, and that by entering a gallery, the viewer is not exposed to any "real" danger. Gallerygoers expect a certain degree of artificiality of the object they engage with.[139] According to Anna Dimitrui,

> [t]hese expectations can be an interesting element in bioartists' armory, since their work confounds the assumptions of the gallery-going public and confronts them with truly new aesthetic experiences that lay bare their ethics, their attitudes to risk, and their attitudes to life.[140]

It is this laying bare or stripping naked of the visceral mechanisms or affects that underpin our every judgment, choice, and action (concerning both human and non-human others) that *mutaFelch* seems to have achieved.

Conclusion

Within this second chapter, I have explored the following question: "How does an affective reading of *mutaFelch* reveal the visceral mechanisms underlying the interaction between the viewer, the artist, and the "felch"? In the process, I have teased out various types of affect like disgust, eroticism, and fear, and how each of them reveals the different mechanism

[138] Ahmed (2004), p. 64
[139] Dimitriu (2014), p. 6
[140] *Ibidem*

underlying the interaction between the viewer, Adam Zaretsky, and the "felch." I have demonstrated how a Deleuzian understanding of affect focuses attention to the continuum between affecting and being-affected,[141] which in turn raises awareness that the viewer can no longer detach himself from what is happening and has instead become bound to other *life forms.*[142] Since *mutaFelch* brings artificially constructed life overwhelmingly close by making the viewer participate within its creation, Zaretsky urges us to find an ethical attitude that acknowledges the continuum between humans and non-humans, the self and the other.[143]

In order to shed light upon the specific responses that *mutaFelch* evokes, I have applied a differentiated approach of the concept of affect. Where disgust draws the viewer into an unwanted linkage that evokes an embodied intensity of pulling away[144], the erotic dimension of *mutaFelch* arouses a desire to lose the self and to form a unity with the other body.[145] Fear renders this unity as dangerous and establishes new boundaries between the fearing and the feared.[146] I have concluded that a differentiated approach of affect reveals the viewer's physical, pre-subjective intensities towards the "other" body.

Since the relationship between science and art forms a constant motif within Zaretsky's work, affect – I argue – renegotiates their apparent polarization. Where science is usually rendered as detached, objective, and logical, m*utaFelch* urges us to examine it as part and parcel of our internal stirrings marked by disgust, erotic desire, and fear – in other words, of *life* itself.

[141] Mitchell (2010), p. 76
[142] Zylinska (2009), p. 167
[143] *Ibidem*, p. 161
[144] Ahmed (2004), p. 84
[145] Mennighaus (2003), p. 1
[146] Ahmed (2004), p. 64

Third Chapter: *Rethinking Innocence in Participation*

Introduction

Contemporary biotechnological practices like cloning, genetic modification, and tissue engineering have enabled us to design and construct our own bodies and thus have entered "…the intimate realm of bodily experience."[147] And as in most issues concerning the body, a paradox arises: we are both discussed object and discussing subject. Consequently, when we try to adopt a distant and reflective approach by fixing these bodily issues as mere theoretical issues, something seems to escape from the applied theory: our own bodily reality.[148]

According to Robert Zwijnenberg, bioart confronts us with biotechnological issues in an embodied way and can provide an experience "… that is marked by ambiguity, complexity, disturbance, unsettlement and imbalance."[149] In order to achieve such an embodied encounter, bioartists often *activate* their viewers by letting them participate within the work. By providing hands-on experiences, bioart can evoke a bodily reality within the viewer that ventures beyond a mere theoretical engagement with biotechnological issues.[150] Such participation can be read as an educational tool to provide people with hands-on knowledge of these issues. However, at the same time, participation is and will always be about the sharing of power and its potential abuse—and as for all power structures, participation should not be accepted as a good in itself, but should be critically interrogated.

Within the final chapter of this thesis, I intend to bring two concepts not generally discussed in tandem, participation and bioart, into conversation. Since participation inevitably raises issues of agency and power, I consider it important to approach participation in a way that exceeds a simplistic sense of people making art together.

I draw upon Deleuze's concept of affect in order to enrich our understanding of how a participatory experience of bioart can evoke a hybrid sense of activity and passivity.[151] I call for a tangible encounter with issues that address both the subjective and embodied nature of the viewer. By drawing upon my subjective experience as a participant of *mutaFelch*, I will answer the following question: "How does the concept of participation enhance and augment our understanding of the biotechnological issues raised by bioart?"

---

[147] Brodwin (2000), p. 1
[148] Butler (1993), p. ix
[149] Zwijnenberg (2014), p. 140
[150] *Ibidem*, p. 141
[151] Mitchell (2010), p. 73

Approaching Participation

Let us first focus on *participation* as a concept. Participation is often read as a political tool that stimulates several modes of inclusion such as negotiation and democracy. However, as usually is the case with largely unquestioned political tools, participation has begun to show its downside.[152] Participation's apparent innocence has been increasingly questioned within various academic fields. In the process, the concept has become ambiguous and even gained a non-democratic, opportunistic, and violent connotation.[153] According to Trevor Parfitt, Associate Professor in the Department of Politics, History, and International Relations at Nottingham University, Malaysia, this is due to the fact that the concept is always both means and end of the same process: "[p]articipation must functionas a means because any development project must produce some outputs (therefore participation is seen as a means to achieve such outputs), but it must also function as an end inasmuch as empowerment is viewed as a necessary outcome."[154] Within these different definitions of participation, some entail the actual empowerment of the participant—for example, in the following definition: "Community participation [is] an active process by which beneficiary or client groups *influence* the direction and execution of a development project with a view to enhancing their well-being in terms of income, personal growth, self-reliance or other values they cherish."[155] In this definition, the input of the participants has the capacity to influence the development.

However, within other definitions, the notion of participation functions as a way to mobilize people in realizing an already fixed outcome.[156] Consider, for instance, the following definition: "Participation is considered a voluntary contribution by the people in one or another of the public programmes supposed to contribute to national development, but the people are not expected to take part in shaping the programme or criticizing its contents (Economic Commission for Latin America, 1973)."[157] Within this fragment, the contributions from the participants are of no *real* consequence for the formation of the program. This ambiguity within the concept of participation has triggered many critical voices to question "…the emancipatory claims of participation" by arguing that instead of empowering subordinate others, "…participation is simply another means of pursuing traditional top-down development agendas, while giving the impression of implementing a

[152] Miessen (2010), p. 13
[153] *Ibidem*, p. 15
[154] Parfitt (2004), p. 537
[155] Oakly, Paul (1987) as quoted in Parfitt (2004), p. 538
[156] Parfitt (2004), p. 539
[157] Oakly, Paul (1987) as quoted in Parfitt (2004), p. 538

more inclusive project of empowering the poor and the excluded."[158] Thus it is that participatory research approaches often pay heed to issues of who is presumed "to know."

The notion of participation as a form of power becomes more extreme when we add collaboration to its scale of meaning.[159] According to Eyal Weizman, Professor of Visual Cultures and director of the Centre for Research Architecture at Goldsmiths, University of London, "[c]ollaboration might be thought of as the tendency for forcefully or willingly aligning one's actions with the aims of power, be it political, military, economic, or a combination thereof."[160] Collaboration presupposes a closed system in which the possible choices are fixed and those who present those options are unchallengeable. Weizman elaborates that by "[s]eeking to force the subject into compliance, a set of alternatives might thus be posed in such a way that 'free-subjects,' choosing for their interests in moderating harm, would end up serving the aims of this power."[161] In his attempt to illustrate the paradoxical nature of participation, Weizman chooses the example of a military officer whose main purpose in life is to defend his country or nation by killing the enemy. It goes without saying that war, with its brute logic of military control lacks a certain "enlightened" moral justification. In order to reinstall these values, the officer collaborates with a humanitarian aid worker who – in return - needs military permission to provide help to the victims of militarization. Weizman continues that this contradictory logic of participation has the capacity to "…obscure moral differences between these groups."[162] The concept of participation, therefore, inevitably raises both ethical and political issues and urges us to acknowledge, what Markus Miessen calls the "…necessity to undo the innocence of participation."[163]

Virginia Eubanks, Associate Professor in the Department of Women's Studies at the University at Albany, touches upon this problematic by posing the following question: "How do we acknowledge the selective uptake, and internal flaws of participatory methods without abandoning their libratory potential?"[164] She continues that "[p]articipation is both threatening and potentially liberating because it makes it impossible to ignore imbalances of power in research relationships, and requires thinking creatively and reflexively about

[158] Parfitt (2004) p. 537
[159] Weizman (2010), p. 9
[160] *Ibidem*
[161] *Ibidem*, p. 9
[162] Weizman (2010), p. 10
[163] Miessen (2010), p. 13
[164] Eubanks (2009), p. 109

redistributing the intellectual and material risks and benefits of research."[165] In Eubanks' view, issues of power and agency inevitably arise within participatory knowledge production processes. Having worked on the intersection of Woman's Studies and Science and Technology Studies, Eubank confesses to have several examples of how the people who are most affected by the new techno-scientific developments, are least consulted and informed about their construction, progress and eventual deployment.[166] Eubanks continues by arguing that participation is a form of power, and like all power mechanisms, certain identities are emphasized and others are excluded. And by "… reconsidering who is "inside" and who is "outside" of the research and development process, maximizing accountability and transparency, nurturing democratic decision-making, and acknowledging and encouraging, we can bring the power back to participation."[167]

Rethinking Participation in Art

Let us now interrogate *if* and *how* participation might prove to be a helpful concept in relation to art. When we consider the traditional relationship between art and the viewer, there exists a clear boundary between the two. One could even say that the relationship is of a hierarchal nature in the sense that the work or performer acts upon or affects the passive viewer. Throughout the second half of the 20th century, several art movements (such as Relational Art, Littoral Art and Participatory Art) have emerged in order to destroy these prescribed roles and boundaries and have aimed instead for a democratization of spectatorship.[168]

Within her article *Antagonism and Relational Aesthetics (2004)*, the art historian Claire Bishop discusses the work of New York-based artist Rirkrit Tiravanija (1961), as he is known to "…privilig[e] intersubjective relations over detached opticality."[169] The work *Untitled (Still)* (1992), which was performed in Gallery 303 in New York, consisted of a complete renegotiation of traditional roles and relations: all the elements that Tiravanija had found in the gallery's invisible places such as the storeroom and the office space were redistributed within the public area.[170] Furthermore, Tiravanija used the gallery space to cook curries, which he served to the audience. According to Bishop, it was "…this involvement of the audience [that was] the main focus of his work: the food is but a means

[165] Eubanks (2009), p. 109
[166] *Ibidem*, p. 108
[167] *Ibidem*
[168] *Ibidem*
[169] Bishop (2004), p. 61
[170] *Ibidem*, p. 56

to allow a convivial relationship between audience and artist to develop."[171] In this work, participation consists of the viewer being able to be physically present within the work by sitting down and eating the food. However, according to Bishop the participatory possibilities have been already pre-determined by the artist. She writes: "Tiravanija insists that the viewer be physically present in a particular situation at a particular time—eating the food that he cooks, alongside other visitors in a communal situation."[172]

In order to gain better understanding of the complexity that this form of participation brings to bear, Bishop draws from Nicolas Bourriaud's *relational aesthetics*, a notion that draws attention to the sociable capacity of art. According to Bourriaud, the interactivity between the artist and the viewer *produces* new relationships.[173] This proposed interactivity exceeds an understanding of the experience of art as an "…optical contemplation of an object, which is assumed to be passive and disengaged"[174] because instead of operating only on a symbolic level, the work is capable of actually *producing* new relationships.[175] Bourriaud continues by arguing that we should not only judge participatory works on their aesthetic qualities but also according to their newly produced relationships. Every dialogical activity is considered as a democratic act and is therefore automatically rendered as positive. What Bourriaud seems to advocate is that the encounter between the elements is of greater importance than the individuals that make them happen. And yet, Bishop questions what "democracy" can mean when one fails to question the nature of these newly formed relationships. For instance, the question of for *whom* Tiravanija cooks is less important to Bourriaud than the fact that he gives away the results of his cooking for free. The *quality* of these relationships (are they for instance oppressive?) is never called into question within relational aesthetics.[176] What Bishop demonstrates is that participation should never be taken for granted and should always be examined in the light of its possible political implications. Or, as Jeremy Till professor of Architecture at the University of Sheffield has argued, the neutral use of participation "…create[s] a veneer of worthiness; but if you scratch the surface, critical interrogations of what is at stake are strikingly absent."[177]

---

[171] Bishop (2004), p. 56
[172] *Ibidem*, p. 61
[173] *Ibidem*, p. 63
[174] *Ibidem*, p. 62
[175] *Ibidem*, p. 64
[176] *Ibidem*, p. 65
[177] Till as quoted in Miesen (2010), p. 33

Participation in Bioart

It has been said that bioartists invent new ways to engage their audience with living and technological mediated matter. And by staging such encounters, they strive to "demystify and democratize science"[178] and to bring the general public into techno-scientific debates. According to Dumitriu and Farsides, it has been widely accepted that art can introduce people to science, even though these people "… do not consider themselves scientifically minded, or even interested in the subject matter. Being able to participate in such a work can provide the viewer with "…a meaningful experimental entry into complex ideas."[179] One could argue that - according to this view – art, in relation to science, embodies a more subversive role and merely functions as a means of attracting attention for recent scientific discoveries. But as Dumitriu has pointed out, "…the reality is in fact more complex and the art world far more diverse for such a simplistic understanding of bioart."[180] For instance, Eduardo Kac's *Genesis* (1999) complicates a reading of participation as a form of education. In a darkened room, bacteria are grown under an ultraviolet lamp. These bacteria have been created through an extensive translation process which Kac started by converting into Morse Code the following biblical phrase: "And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth" (*Genesis* 1:26).

According to cultural theorist Ingeborg Reichle, "[t]he choice of this key sentence from *Genesis*, which describes humanity's divine charge to rule over nature, is considered questionable nowadays because the idea of nature underpinning it reduces nature to objects."[181] And yet, it is precisely this controversial attitude to nature – an attitude that "…both determines and legitimizes the wide-ranging domination and exploitation of nature by humankind"– that Kac strives to reveal. Kac chose Morse code to represent the first global communication technology that marked the beginning of the information age.[182] Kac continued his translational process by sending the Morse code to a commercial synthesis company that translated the dots and dashes into genetic code. This so-called "artist's gene", together with "a cyan fluorescent marker," were placed into a plasmid that functioned as a vector for inserting the "artist's gene" into *E. coli* bacteria.[183] In Mitchell's description of *Genesis* we read, "These *E. coli*, as well as additional *E. coli* that lacked the altered plasmid

[178] http://incubatorartlab.com/home/projects/bioartcamp/ (08-06-2015)
[179] Dumitriu (2014), p. 3
[180] *Ibidem*
[181] Reichle (2009), p. 125
[182] *Ibidem*
[183] Mitchell (2010), p. 46

but contained a yellow fluorescent maker, were placed in a medium that encouraged the bacteria to grow and divide." A video projector and ultraviolet light enabled the audience to examine the process in real time.[184]

Viewers could participate on two levels: those who were present in the gallery could turn the ultraviolet light on or off by using a computer device, an activity that would disrupt the DNA sequence in the plasmid and would cause an acceleration of the mutation rate.[185] At the same time, *Genesis* included an Internet component that allowed telepresent viewers to equally influence the workings of the light.[186] The viewers, who were situated within the gallery space, were profoundly affected by their newly-gained responsibility, since their bodies shared the same physical space as the transgenic life. However, for the telepresent viewers who were situated within the safe environment of their homes, other sensations informed their choices. According to Steve Tomasula, in being able to change a life process with one click of a button, "…the viewer realizes how impossible it is to walk in the Garden without altering it. Looking down upon this microcosm, finger on the button, it's hard to not want to alter the bacterial garden if for no other reason than to see what will happen."[187] In his theorization of the experience of bioart, Mitchell draws on a Deleuzian conception of affect. He argues that bioart evokes a

> … hybrid sense of activity *and* passivity – a sense, for example, that I am both able to choose whether to alter the environment of transgenic bacteria (either by releasing them or changing their exposure to ultraviolet light, as in *Genesis)* and at the same time I am exposed to the decisions of others and to the effects of these livings beings upon my own body and environment.[188]

I argue that we need this reading of affect in order to understand the specific role of participation within bioart. By allowing the viewer to participate within the work, *Genesis* addresses the viewer as an *active* element that can affect the scope and the performance. And yet, at the same time, participation in *Genesis* exceeds individual choice. When considering the total number of participants, of which the vast majority are invisible and anonymous and who all base their decisions on radically different motivations and desires, we realize that our individual choice by itself can never have any impact. However, because the viewer is dependent upon and exposed to the decisions of others, this viewer is also *passively*

---

[184] Mitchell (2010), p. 46
[185] Kac as quoted by Mitchell (2010), p. 47
[186] Mitchell (2010), p. 47
[187] Tomasula as quoted in Reichle (2009), p. 127
[188] Mitchell (2010), p. 75

involved.[189] For if this transgenic life were to escape from the gallery, *nobody* can escape the effects that it would cause for all living beings. I therefore argue that affect reframes participation as a continuum of being both actively and passively, voluntarily and involuntarily engaged with the work.

Since the issues that such works give rise to, affect our notions of the human body, we find ourselves in a paradoxical position where we are as much discussed object as discussing subject. This complexity urges us to find new theoretical positions that address our involved subject position of the examining subject. Art historian Anja Novak assists us at this juncture. In her PhD dissertation *Space for experience: Installation art and spectatorship*, Leiden University (2010), she examines how spectatorship is brought about by installation art.[190] Even though the viewer's experience forms an integral part of the installation, any theorization that incorporates these individual experiences is still missing within the debate on viewer participation. According to Novak, this is due to the ban on subjective approaches that still is influential within current art historical discourses.[191]

While Novak agrees that more subjective approaches contain the risk of providing merely personal recollections of what has happened, yet within a more distant, objective approach lies the danger of reducing the experience of art to an illustration for a certain theory.[192] Novak argues that installation art can evoke experiences that exceed theoretical boundaries and, in order to do justice to this unique capacity of art, one should depart from these personal, subjective experiences.[193] Here I side with Novak in that while discussing the importance of participation in bioart, we should not only deal with our topic as detached and contemplating subjects, but also engage with it as active participants who are very much involved within the process. I will therefore draw upon knowledge gained from my own participation in Zaretsky's *mutaFelch*. By having sought an *in situ* encounter with the work, I will incorporate first person thoughts and observations collected during my participatory experience. This will allow me to gain more insight in the specific mechanism of participation in bioart.

Participation in *mutaFelch*

Within most of Zaretsky's works, audience participation provides a central motif. For example, in his *Transgenic Pheasant Embryo Lab*, Zaretsky has adopted a hands-on approach,

[189] Mitchell (2010), p. 75
[190] Novak (2010), p. 239
[191] *Ibidem*, p. 13
[192] *Ibidem*, p. 69
[193] *Ibidem*, p. 13

allowing his viewers to create transgenic pheasant embryos by injecting the embryos with plasmid DNA. The participants, most of whom had never entered a lab before, were invited to wear white coats and rubber gloves and to use the tools and procedures customary within the Life Sciences. Since embryos are not considered alive as they cannot sustain life independently, these experiments were completely within the bounds of science ethics.[194] However, in order to sustain these legal activities, the embryos had to be killed before the egg had hatched. For this, Zaretsky offered several techniques that are not routine within laboratories, such as putting the embryo to sleep with valium or performing a ritual sacrifice.[195]

By introducing these quasi-religious elements, which emphasized a sacrificial dimension within the scientific process, Zaretsky problematized the familiar methodology of science. Suddenly, the comfortable space of objectivity and neutrality that the lab usually provides was disrupted by intense sensations of horror and guilt. Some participants recalled to be so affected by what they or Zaretsky had done that they had burst out crying.

According to Robert Zwijnenberg, participation in *Transgenic Pheasant Embryo Lab* can be considered as a form of education that exceeds other, more traditional educational programmes.[196] By providing participants with hands-on experiences of "ethical judgements and action", Zaretsky potentially raises awareness of the ethical complexity that bioethical issues bring forward.[197]

And yet, there seems to be more at stake when participating in Zaretsky's projects. When asked to donate an element in the blender, or to participate in the process of further destabilizing Zaretsky's body, "… most people […] will do it, whilst wondering if they should."[198] I argue that this is due to the fact that an artist possesses a certain authority and esteem. In *mutaFelch*, this is further emphasized by Zaretsky's lab coat. According to philosopher David Koepsell, who performed as a member of the ethical committee of the *Trust Me, I'm an Artist* series, an

> …artist… with or without the white coat, but especially with, is proclaiming some sort of authority that has a danger for the subjects, the human canvasses that he intends to use will… look at him as an authority and he has the duty because of that authority (just as a scientist would) to properly measure the risks, to weigh the benefits and to properly inform.[199]

---

[194] Zwijnenberg (2012), p. 10
[195] http://we-make-money-not-art.com/archives/2009/01/-yes-its-true-im.php#.VXgI_VztlBc (10-06-2015)
[196] Zwijnenberg (2012), p. 10
[197] *Ibidem*
[198] Dumitriu (2014), p. 16
[199] *Ibidem*, p. 19

Zaretsky neglects this duty since, rather than informing his audience, he deliberately keeps them in the dark. Due to the fact that none of his claims can be verified and that all knowledge is presented in an obscene, disgusting, or fearful guise, the participants remain ignorant and confused throughout the entire performance. By obscuring the process (scientific or otherwise), Zaretsky establishes a hierarchical relationship between the artist and the viewer—hierarchical in the sense that only Zaretsky can distinguish between what is true and what is fictional, what is dangerous and what is harmless. Due to their ignorance, the participants depend on, and will likely obey, the artist's instructions.

In order to experience a more involved approach to the subject, I decided to participate in *mutaFelch*. Zaretksy gave me two choices: I could either assist in extracting the *E-coli* cells from his body by pumping the mixture of sperm and blood into his rectum, or I could perform as a human canvas and allow him to paint over my forehead with his newfound medium. I could either choose to be active – the one who shoots – or to be passive and to be shot. I felt so repelled by the first option that it seemed as if my entire body was saying "no." The act of putting a tube in somebodies anus in public gave rise to several sexual connotations. And for all I knew, it might give him some kind of pleasure. On the other hand, the second option, aside from being disgusting and unhygienic, would turn me into a passive prop. I would subject myself to an experience in which I would undergo the effects of the paint and at the same time would be watched by the public. This would present me in a state of extreme vulnerability: both my body and psychological state would be affected by the *felch*. And I realized that in the eyes of the audience, I would become an "…object of medical curiosity."[200] I confronted Zaretsky with my objections, and together, we decided on an act that would involve a mutual exchange: I would first "paint" him by placing a stamp on his forehead, after which he would repeat the act (Fig. 17).

When considering my participation through the lens of a Deleuzian affect, we can consider this gesture as a form of active participation, in which the viewer feels he has a choice whether or not to alter the performance.[201] As such, the mutual exchange of Zaretsky's "felch" could be understood as an attempt to establish an even playing field. And yet, at the same time, my participation exceeded my individual choice. Due to my uncertainty of whether the "felch" was in fact capable of affecting my genetic make-up, I was dependent on Zaretsky's whims and decisions and, more importantly, on his underlying desires.

---

[200] http://www.bioartira.com/8-medical-technology-series_psychoactive-pills/ (06-06-2015)
[201] Mitchell (2010), p. 75

As soon as I felt the liquid on my forehead, uncertainty took hold of me. What if I could not trust this man standing in front of me at such close quarters? What if he desired to hurt me? What if he wanted to use my body as an object on which he could conduct his biotechnological experiment? My skin, which usually protects "me" from what is "not me," suddenly felt very thin—textureless, even. Far from experiencing a mutual exchange or as an act of reciprocity, I instead felt in need of new boundaries for defining who I was and who the other was. I seriously questioned if Zaretsky could be trusted and if he wanted to harm me.

Through my personal, intimate, and embodied encounter with *mutaFelch*, I experienced an ontological vacuum in which my profound uncertainty and ignorance made me vulnerable for Zaretsky's authority. Yet, at the same time, by making such abuse and exploitation palpable—by unmasking science's rhetoric and revealing how all power structures are mechanisms of exploitation and degradation—he allows us to truly experience how vulnerable we feel when our bodies are at stake. As such, participation in *mutaFelch* – both in theory and in practice – has the potential to enhance our understanding of biotechnological issues by incorporating both the intimacy of bodily experience and a critical, theoretical approach that understands the power structure inherent in technology.

Conclusion

In this chapter, we have seen how the concept of participation inevitably raises issues of power and its potential abuse. By challenging the concept's apparent innocence, we have come to understand how participation consists of a paradoxical mechanism of being both means and end of the same process.[202] This ambiguity can result in unequal relations of power, discrimination, and elimination of personal freedom. According to Eubanks, we should therefore maximize accountability and transparency in order to reinstall the liberating potential of participation.[203]

By drawing on Claire Bishop's critique of Nicolas Bourriaud's relational aesthetics, I have demonstrated that participatory strategies in art are mostly considered as democratic and are therefore automatically rendered as positive.[204] Bishop has revealed how most participatory options are already fixed by the artist, and therefore establish a certain relationship that should not be taken for granted.[205] This has raised awareness that even in art historical discourse, participation should be examined in the light of its possible political

[202] Parfitt (2004), p. 537
[203] Eubanks (2009), p. 109
[204] Bishop (2004) p. 65
[205] *Ibidem*

implications.

By following the concept of participation *vis-à-vis* bioart, I have pointed out that bioart complicates a reading of participation as a form of education. Due to the Web dimension of *Genesis* that empowered both the telepresent viewers and the viewers in the gallery to equally influence the construction of artificial life, participation exceeded individual choice. Due to the choices of many anonymous others, the participant realizes that his decision whether or not to influence the growth and mutation of transgenic life can never have any *real* power in the whole ordeal. Since an encounter with bioart addresses both the active and passive involvement of the viewer, I return to Deleuze as a way of formalizing participation as a continuum of being both actively and passively, voluntarily and involuntarily, involved in the work.[206]

I have demonstrated how Zaretsky's performances unmask techno-scientific power structures by obscuring the scientific process and presenting it in an obscene, disgusting, or fearful guise. Due to my personal involvement in *mutaFelch*, we have seen how an intimate encounter with biotechnology can evoke an ontological vacuum in which, due to uncertainty and ignorance, the participant becomes vulnerable to Zaretsky's authority. Thus, I conclude that by incorporating both the intimate realm of bodily experience and a critical, theoretical approach that understands the power structure inherent in technology, participation enhances and augments our understanding of biotechnologies.

[206] Mitchell (2010), p. 75

Final Conclusion

In this thesis, I developed a theoretical framework consisting of various and relevant conceptions of affect and participation as a means to enhance our understanding of bioart. In the first chapter, I developed an interdisciplinary conception of affect. By addressing the question: "How can the concepts of affect and participation provide me with a relevant framework through which we might gain a better understanding of bioart?", I juxtaposed and synthesized philosophical, art theoretical, and psychoanalytical understandings of affect. By drawing on a Deleuzian conception of affect, I demonstrated how the concept renders both viewer and art object as dynamic elements that both have the capacity to affect and be affected at the same time.[207] Since affect renders all matter as agential, affect allows us to read artworks in ways that exceed their inanimate object status. As such, affect challenges us to theorize art beyond theories of representation and signification that we inherit from the humanities.[208]

Since bioart *presents* living matter in the gallery space, it denies the safe, distant, and contemplative space that *representational* art usually provides.[209] Rather, bioart draws the viewer into relational complexity and, by doing so, transforms the viewer into an embodied element of the problematic of biotechnology.[210] Yet, I have argued that a Deleuzian understanding of affect does not address the question of *why* bioart can evoke strong sensations of disgust and abjection. Following Tomkins' and Sedgwick's approach of affect as a manifold concept, I have demonstrated how a psychoanalytical addition of affect enhances our understanding of *how* bioart evokes different, and often overlapping affects like pain, disgust, and fear, and how being in the presence of something that lives can reconfigure relationships between viewer and artwork, between subject and object, and between self and other.

In exploring the following question: "How does an affective reading of *mutaFelch* enrich our understanding of the visceral mechanisms underlying the interaction between the viewer, the artist, and the "felch"?", I have fleshed out the proposed theory by applying the affect to Adam Zaretsky's *mutaFelch* performance. I have demonstrated that *mutaFelch* confronts the viewer with artificially constructed life in ways that evoke responses (disgust, obscenity, and fear), and I have argued that in order to understand *why* bioart evokes such visceral responses, we must probe deeper into these affects and reveal their underlying

---

[207] Mitchell (2010), p. 76
[208] Bennett (2005), p. 4
[209] Mitchell (2010), p. 27
[210] *Ibidem*, p. 73

mechanisms. This approach has showed us how a Deleuzian understanding of affect allows us to focus attention to the continuum between affecting and being-affected,[211] which raises awareness that the viewer is bound to other life forms and is no longer able to disengage from what is occurring.[212] Because of his involved role within the creation of artificially constructed life, the viewer in *mutaFelch* is forced to find an ethical attitude towards these new life forms – an attitude that acknowledges the continuum between humans and non-humans, the self and the other. [213]

In order to shed light upon the differentiated responses that *mutaFelch* evokes, I have expanded my affective reading with a psychoanalytical addition. This psychoanalytical approach (adopted from Sedgwick and Sullivan) has allowed me to probe deeper into the specific responses and, by so doing, revealed underlying mechanisms that determine the interactions between viewer, work, and the artist. As such, I have demonstrated how disgust draws the viewer into an unwanted linkage with the disgusting body that evokes the visceral urge to pull away.[214] Yet, by drawing on the concept of eroticism, I have pointed out how within the disgusted response lies the (erotic) desire to lose the self and to form a unity with the other body.[215] Nonetheless, due to the uncertainty of whether the viewer is actually exposed to the artificially constructed life or other infectious bacteria, fear renders this unity as potentially harmful for the self and establishes new boundaries between the fearing and the feared.[216] Thus, by approaching *mutaFelch* with a differentiated approach of affect, I have revealed the viewer's visceral intensities towards the other body – intensities that underlie our every interaction with and therefore determine our ethical attitudes towards other bodies of both human and non-human others.

These responses seem to form a stark contrast to scientific rhetoric: where science is usually rendered as detached, objective, and logical, *mutaFelch* confronts us with science's *libidinal* reverse. By laying bare the visceral mechanisms determining the interactions between the viewer, the artist, and the artificial constructed life, *mutaFelch* urges us to examine science and the biotechnologies it develops as part and parcel of our internal stirrings marked by disgust, erotic desire, and fear – in other words, of *life* itself.

Within the third chapter I shifted my focus from *affect* to the concept of *participation.* I argued that even though affect draws attention to the viewer's involvedness within the work, it does not suggest issues of power that participation – both in theory and in practice

[211] Mitchell (2010), p. 76
[212] Zylinska (2009), p. 167
[213] *Ibidem*, p. 161
[214] Ahmed (2004), p. 84
[215] Menninghaus (2000), p. 1
[216] Ahmed (2004), p. 84

– inevitably bring forward. I have explored the following question: "How does the concept of participation enhance and augment our understanding of the biotechnological issues raised by bioart?" In so doing, I have challenged the concept's apparent innocence by revealing its inherent paradox of being both means and end of the same process.[217] I have demonstrated how this ambiguity has often resulted in unequal power relations, issues of discrimination, and the elimination of personal freedom. As argued by Eubanks, the fault within participation can only be resolved when accountability and transparency is maximized within participatory projects.[218]

When considering participation in art, we have seen how participation is mostly considered as a way of democratizing the art making process.[219] However, as I have demonstrated most participatory options have already been fixed by the artist and have therefore established relationships between people that should not be taken for granted and should be equally examined in the light of their possible political implications.

When reflecting on participation in bioart, I have demonstrated how participation in Kac's *Genesis*, complicates a comprehension of participation as a form of education. Since the computer operating the ultraviolet lamp can also be controlled online, the viewer - who is present within the gallery space - realizes that his decisions will never possess any *real* power in the whole ordeal. Furthermore, by drawing upon Mitchell's application of a Deleuzian affect, I have demonstrated how participation in bioart evokes a hybrid sense of being both actively and passively, voluntarily and involuntary involved within the work.[220]

This hybridity is also present within Zaretsky's performances: even though the viewer is allowed to actively engage with bioethical issues, he has been kept in the dark about the risks and possible dangers of the experiment. By obscuring the scientific process and presenting it in an obscene, disgusting, or fearful guise, Zaretsky establishes a hierarchical power relationship in which the participant depends on, and will likely obey, the artist's instructions. Enhanced by my personal involvement in *mutaFelch*, we have seen how bioart can evoke a bodily reality of biotechnological issues that are marked by our vulnerability towards the power structures inherent in biotechnology.

---

[217] Parfitt (2004), p. 537
[218] Eubanks (2009), p. 109
[219] Bishop (2004), p. 65
[220] Mitchell (2010), p. 73

List of Illustrations

Fig. 1

Alexis Rockman, *Farm*, 2000, oil & acrylic on wood panel, 96 x 120 in, Leo Koenig Gallery, New York.

Fig. 2

Catherine Wagner, *-86 Degree Freezers (Twelve Areas of Crisis and Concern)*, 1995, twelve-panel typology, gelatin silver prints, 20 x 24 in., each, courtesy of Stephen Wirtz Gallery.

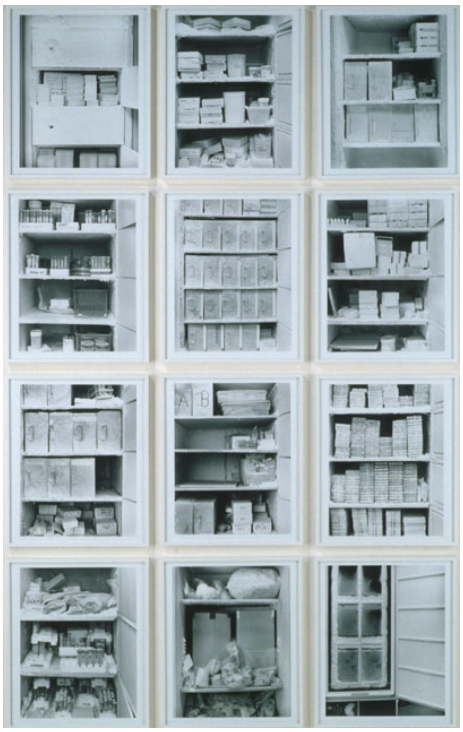

Fig. 3

Beatriz Da Costa and the Critical Art Ensemble, *Transgenic Bacteria Release Machine*, 2001. Interactive installation consisting of a robotic arm, 10 covered petri dishes, transgenic E. coli bacteria and a red button, which, when pressed, will trigger the robotic arm to open up one of the petri dishes. Exhibited in 2003 at the Museum of Natural History in London, image courtesy of Beatriz da Costa.

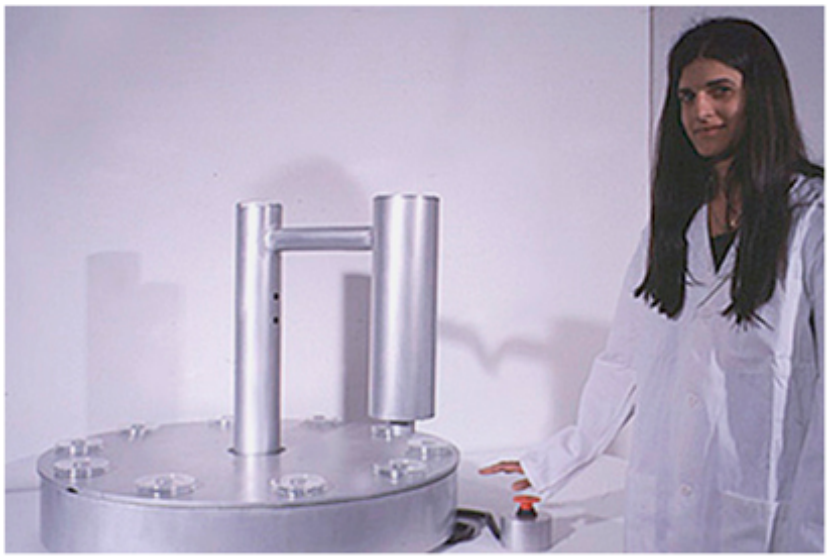

Fig. 4

Oran Catts and Ionat Zurr, *Semi-Living Worry Dolls*, 2000. Sculptures created by tissue engineering technologies, image courtesy of TC&A.

Fig. 5

Detail, *Semi-Living Worry Dolls*, 2000, image courtesy of TC&A.

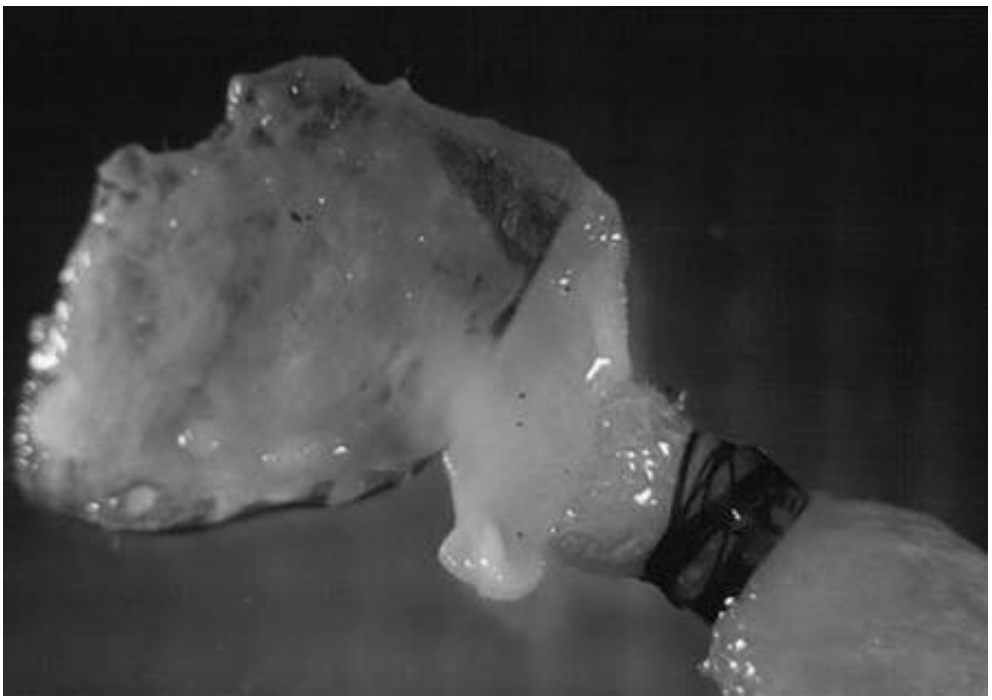

Fig. 6

Adam Zaretsky, "Mixing the human and non-human elements" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Fig. 7

Adam Zaretsky, "Filtering the hybrid pulp" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Fig. 8

Adam Zaretsky, "New media art" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Fig. 9

Adam Zaretsky, "DNA extraction" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Fig. 10

Adam Zaretsky, "Jackhammer and sledgehammer" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Marie Mart Roijackers.

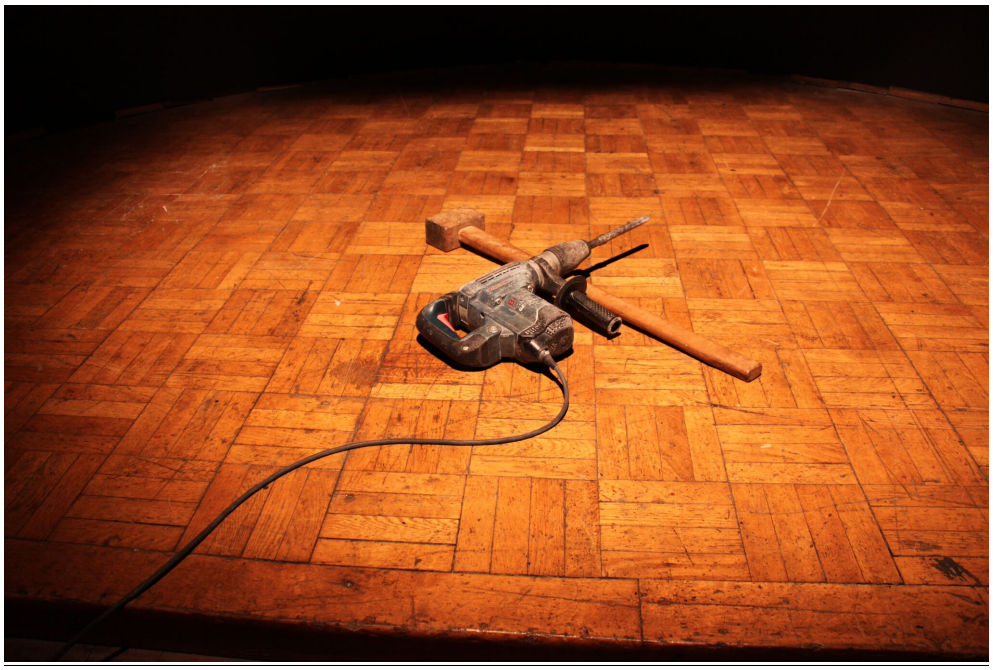

Fig. 11

Adam Zaretsky, "Biolistics in action" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Fig. 12

Adam Zaretsky, "Different stamps" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Fig. 13

Adam Zaretsky, "Different stamps on canvasses" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Fig. 14

Adam Zaretsky, "The primeval porridge of life" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Marie Mart Roijackers.

Fig. 15

Adam Zaretsky, "Responses of the viewers" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Marie Mart Roijackers.

Fig. 16

Adam Zaretsky, "Inserting the mixture of sperm and blood into Zaretsky's rectum" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Fig. 17

Adam Zaretsky, "Participating as a human canvas" in *mutaFelch*, 2014, Kapelica Gallery, Ljubljana, image by Izolacija Hibridnega.

Bibliography

S. Ahmed, *The Cultural Politics of Emotion*. Edinburgh: Edinburgh University Press, 2004

E. van Alphen, 'Affective Operations of Art and Literature', *RES* 53 – 54 (2008), 20 - 30

A. Athanassoglou-Kallmyer, 'Mediation', in: R. Nelson (ed), *Critical Terms for Art History*. Chicago: The University of Chicago Press, 2003, ix-x

T. Baudoin, 'A Season of Reading and Encounters with Affects', in: T. Baudoin, F. Bergholtz, V. Ziherl, *Reading Feeling*. Amsterdam: If I Can't Dance, I Don't Want To Be Part Of Your Revolution, 2013, 11 - 15

M. Bal, *Travelling Concepts in the Humanities: a rough guide*. Toronto: University of Toronto Press, 2002

G. Bataille, *Death and Sensuality. A Study of Eroticism and the Taboo*. New York: Walker and Company, 1962

G. Bataille, *Eroticism*. London: Marion Boyars Publishers Ltd, 1987

C. Bishop, 'Anatogonism and Relational Aesthetics', *OCTOBER* 110 (2004), 51 - 79

M. Blechner, *Sex Changes: Transformations in Society and Psychoanalysis*. New York: Routledge Taylor and Francis Group, 2009

M. Blechner, 'Disgust, Desire, and Fascination. Psychoanalytic, Cultural, Historical, and Neurobiological Perspectives Commentary on Muriel Dimen's Paper', *Studies in Gender and Sexuality* 6-1 (2005), 33 - 45

R. Braidotti, *The Posthuman*. Cambridge: Polity Press, 2013

P. Brodwin (ed), *Biotechnology and Culture. Bodies, Anxieties, Ethics*. Bloomington: Indiana University Press, 2000

J. Butler, *Bodies That Matter, On the Discursive Limits of "Sex"*. London: Routledge, 1993

G. Deleuze, *Proust and Signs*. New York: Braziller, 1964

G. Deleuze, F. Guattari, *A Thousand Plateaus*. London: Bloomsbury Academic, 2013

A. Dumitriu, B. Farsides, *Trust Me, I'm an Artist. Towards an Ethics of Art and Science Collaboration*. Blurb Online Publishing, 2014

A. Duncan, 'Inside – Outside – Permutation. Science and the Body in Contemporary art', in: S. Ede (ed.), *Strange and Charmed. Science and the Contemporary Visual Arts*. London: Calouste Gulbenkian Foundation, 2000, 144-163.

V. Eubanks, 'Double-Bound. Putting the Power Back into Participatory Research', *Frontiers: A Journal of Women Studies* 30-1(2009), 107-137

J. Gabriel, 'Bioart and Biopower. Reflections on the Aestheticization of Life Itself', in: J. Rushin, *Heads, Shoulders, Genes, Toes*. exh. cat, Florida: Florida State University Museum of Fine Arts, 2013, 15 – 31

G. Khut, 'Development and Evaluation of Participant-Centred Biofeedback Artworks', (Doctoral dissertation or master's thesis, School of Communication Arts, University of Western Sydney, 2006).

R. Leys, 'The Turn to Affect. A Critique', *Critical Inquiry* 37 – 3 (2011), 434 - 472

B. Massumi, *Parables for the Virtual: Movement, Affect, Sensation*. Durham: Duke University Press, 2002

W. Menninghaus, *Disgust: The Theory and History of a Strong Sensation*. New York: State University of New York Press, 2003

M. Miessen, *The Nightmare of Participation*, New York: Sternberg Press, 2010

R. Mitchell, *Bioart and the Vitality of Media*. Seattle: University of Washington Press, 2010

A. Novak, 'Ruimte voor Beleving. Installatie Kunst en Toeschouwerschap', (PhD diss., Leiden University, 2010).

T. Parfitt, 'The Ambiguity of Participation. A Qualified Defence of Participation Development', *Third World Quarterly* 25-3 (2004), 537 – 556

I. Parker, 'The truth about over-identification', in: P. Bowman, R. Stamp (eds.), *The Truth of Žižek*. London: Continuum, 2007, 144 - 160

I. Reichle, *Art in the Age of Technoscience. Genetic Engineering, Robotics, and Artificial Life in Contemporary Art*. Austria: SpringerWienNewYork, 2009

E. Sedgwick, *Between Men. English Literature and Male Homosocial Desire*. New York: Colombia University Press, 1985

E. Sedgwick, A. Frank, 'Shame in the Cybernetic Fold: Reading Silvan Tomkins', in: *Touching Feeling: Affect, Pedagogy, Performativity*, London: Duke University Press, 2003

J. Willet, 'Biotechnology: Embodied Models for Understanding Biotechnology in Contemporary Art' *Leonardo Electronic Almanac* 14 - 7 /8 (2006), 1 – 11

A. Zaretksy, 'Reading Through Embryologist's Eyes', (PhD diss., Rensselaer Polytechnic Institute New York, 2012).

A. Zaretsky, 'Genegun/Shotgun' in: *Imagining Science*. exh. cat., Alberta: Art Gallery of Alberta, 2008, 1 - 7

I. Zurr, O. Catts, 'The ethical claims of Bio Art. Killing the Other or Self-Cannibalism?', *Australian and New Zealand Journal of Art: Art & Ethics* 4 - 2 (2003), 167 – 188.

I. Zurr, O. Catts, 'Growing Semi-Living Sculptures. The Tissue Culture & Art Project', *Leonardo*, 35 - 4 (2002), 365 - 370

R. Zwijnenberg, 'Art, the Life Sciences, and the Humanities. In Search of a Relationship' in: I. Reichle, *Art in the Age of Technoscience*. Austria: SpringerWienNewYork, 2009, pp. xiii – xxix

R. Zwijnenberg, 'A Two-Headed Zebrafish. Some Personal Observations on the Relevance and Urgency of Collaborations Between Art, Science and Technology', *Moebius Journal* 1-1 (2012), 1 – 14

R. Zwijnenberg, 'Biotechnology, Human Dignity and the Importance of Art', in: *Teoria: Revista di Filosofia fondata da Vittorio Sainati* XXXIV-1 (2014), 131 – 146

J. Zylinska, *Bioethics in the Age of New Media*. Massachusetts: The MIT Press, 2009

List of Websites

http://www.bioartira.com/8-medical-technology-series_psychoactive-pills/ (06-06-2015)

http://incubatorartlab.com/home/projects/bioartcamp/ (08-06-2015)

https://www.indiegogo.com/projects/vastal-vivoarts-school-travel-fund (15-04-2015)

http://hplusmagazine.com/2011/02/06/mutate-or-die-a-w-s-burroughs-biotechnological-bestiary/ (28-06-2015)

http://www.huffingtonpost.com/2015/02/11/vagina-yogurt_n_6661792.html (14-06-2015)

http://motherboard.vice.com/read/how-to-make-breakfast-with-your-vagina (14 - 06 - 2015)

https://theguardian.com/artanddesign/2006/apr/23/art (16-06-2015)

https://www.waag.org/nl/event/do-it-together-bio-13-personal-algae-production (28-06-2015)

https://waag.org/en/news/errorarium-van-adam-zaretsky (31-03-2015)

http://we-make-money-not-art.com/archives/2009/01/-yes-its-true-im.php#.VXgI_VztlBc (10-06-2015)