

**'PROBLEMATIC TRANSHUMANS'**

**AND 'UNFINISHED' BODIES:**

Understanding human beings as perfectly conditioned machines

in and through Katja Heitmann's *Pandora's DropBox*.

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Thank you *Babet, Veronika* and *Ton* for lending me your computers, in desperate times when my computer decided to quit, just when I was writing about instability of computer machines and errors.

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## ABSTRACT

This thesis is an examination of philosophical ideas about ‘the posthuman’ that emerge in the project *Pandora’s DropBox*, a performance by Katja Heitmann. In *Pandora’s DropBox*, the performers execute a choreography directing distinct manners of moving the body that supports an understanding of the human being as a computer machine. This research clarifies aspects of the choreography that witness philosophical presumptions about how humans and machines function in a posthuman era. Furthermore, I propose in this research to also understand human beings as computer machines, in order to analyze the philosophical ideas that foregrounded this approach. The functionality of the computer machines executing the choreography as a software program resulted in the manifestation of unforeseen bodily responses in *Pandora’s DropBox*, such as excessively sweating, shaking muscles and tearing eyes. I explain how these ‘errors’ create space to reflect on the represented human beings as ‘problematic transhumans’, drawing on Curtis D. Carbonell, and, finally, as ‘unfinished’ bodies, drawing on a theory by Rosemary Klich on the manifestation of posthuman bodies in multimedia performances. Positioning the performance in transhuman philosophical discourse led to the findings that the intentions of *Pandora’s DropBox* bear witness of an ambiguity with regard to transhuman utopian perspectives, that the endeavor of the project is very much in conformance with the transhuman ambition to eliminate all suffering and that the outcomes of the project show a rather dystopian view on transhumanist philosophy. The represented human beings in *Pandora’s DropBox* are problematic transhumans, because their functioning results in unforeseen problems and they have become apathetic beings, which is a condition that does not conform with transhumanist philosophy. However, the represented human beings are also unfinished bodies, works in progress that are constantly redefined, learning and changing.

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# INTRODUCTION

## I *Pandora's DropBox*

In *Pandora's DropBox* the audience members are seated around a hexagon shaped field of artificial grass and they are watching six performers who move slowly and mathematically. Their pace of walking is about twenty times slower than a regular walking pace, performers relocate their feet synchronically and the performers all blink their eyes conforming to a slow audible rhythmic heartbeat. Movements are carried out in an extremely controlled manner and the timing of moving each body part has been calculated carefully. The facial expressions are neutral and steady, and the performers never make eye contact with anyone who is in the room. The performers are wearing shorts, skirts, vests or dresses, which are coated in plastics, they walk on bare feet and some of the performers have uncovered legs, arms or bellies. As the performers keep on moving for a while, their bodies also shake, sweat and drain, which indicates that the performance requires a lot of effort and strength. Faces get soaked from tears and snot, muscles shake uncontrollably and the skins underneath the plastic-coated clothes are becoming soaking wet. Notable, however, is that the performers in *Pandora's DropBox* never wipe away their tears and snot and they never change their performance to make their muscles shake less or to lower their body temperatures. The performers always continue to carry out their performance, as if this is the only thing they are programmed to do.

“Can a human being become a perfectly conditioned machine?”<sup>1</sup> This question was the starting point for Katja Heitmann's<sup>2</sup> *Pandora's DropBox*, a performance in which Heitmann researches how humans and machines relate and questions how the current technological evolution in our daily lives influences our physicality and definitions of being human. In an interview that was published on the website of The Creators Project by Vice, Heitmann mentions that she wants to show a striking image that wakes people up to regard Heitmann's presumption that humans are becoming some sort of machines.<sup>3</sup>

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<sup>1</sup> “Pandora's Dropbox,” Katja Heitmann, accessed on July 23, 2018, <http://www.katjaheitmann.com/work/pandoras-dropbox/>.

<sup>2</sup> Katja Heitmann (1987, Hamburg) is a German choreographer and performance maker, currently operating from The Netherlands, where she also finished her studies at Fontys Dance Academy Tilburg in 2012. Heitmann explores what ‘moves’ us in the current technological era and her artistic work intersects theatre, dance, visual arts, performance and installation. “Info,” Katja Heitmann, accessed on March 28, 2019, <http://www.katjaheitmann.com/info/>.

<sup>3</sup> Katja Heitmann, “Katja Heitmann laat mensen bewegen alsof ze machines zijn,” interview by Anne Myrthe Korvinus, *Vice: The Creators Project*, May 17, 2017, <https://creators.vice.com/nl/article/z4j8aa/katja-heitmann-laait-mensen-bewegen-alsof-ze-machines-zijn>.

She thinks that we are getting more dependent on technologies and that we think less autonomously as human beings. According to the maker, there lies a threat in this development because it might give rise to a society where everybody automatically obeys rules without even reconsidering those rules: a society where everything is perfect and predictable.<sup>4</sup>

Even though Heitmann expresses her ambiguous thoughts about this development, as an artistic researcher she is interested to investigate how a human being can become a perfectly conditioned machine. The performance *Pandora's DropBox* as well as the creation process of the performance are radical attempts of turning human beings into machines. On her website, Heitmann promises that *Pandora's DropBox* presents the perfect human in a perfect world; who is on a mission to maintain balance at all times, who makes every movement with tremendous care, who strives to avoid any conflict, who doesn't suffer any misery and whose actions always maintain or increase the harmony of the composition.<sup>5</sup> What ideas about machines inform these characteristics of the perfect human beings in the creation process of *Pandora's DropBox* and how are these ideas implemented in order to turn human beings into machines during the creation process? Next to taking up the role of a researcher, Heitmann also acts from the position of the director of a performance piece. This means that Heitmann selects the outcomes of her research and chooses what she wants to present in front of an audience. She chooses what becoming-machine looks like, after having researched it, and presents this in the performance of *Pandora's DropBox*. What does this becoming-machine look like in the performance and what answers does Heitmann provide through *Pandora's DropBox* to her question: Can a human being become a perfectly conditioned machine?

## II Posthuman performance practices

In the context of this research, I propose that the performance *Pandora's DropBox* is an example of posthuman performance. I use the term posthuman performance as a collective term that includes a wide range of types of performances that all engage in a decentering and redefinition of classical notions of the human, "following the onto-epistemological as well as scientific and bio-technological developments of the twentieth

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<sup>4</sup> Ibidem.

<sup>5</sup> "Pandora's Dropbox," Katja Heitmann, accessed on July 23, 2018, <http://www.katjaheitmann.com/work/pandoras-dropbox/>.

and twenty-first centuries”<sup>6</sup> such as genetic engineering, cyberneurology and artificial intelligence, according to Doctor of Philosophy Francesca Ferrando. In her article “Posthumanism, Transhumanism, Antihumanism, Metahumanism and New Materialism: Differences and Relations,”<sup>7</sup> the author points out that ‘posthuman’ has become a key term in contemporary academic debate “to cope with an urgency for the integral redefinition of the notion of the human.”<sup>8</sup> Ferrando further explains in another article, “Towards A Posthumanist Methodology. A Statement,”<sup>9</sup> that the word ‘posthuman’ applies to a field of studies and that ‘posthumanist’ refers to a shift in the humanistic paradigm and its anthropocentric worldview.<sup>10</sup> Furthermore, according to Professor of Literature N. Katherine Hayles, there are different conceptions of the word ‘posthuman,’ but a common understanding is that it denotes the fusion of the human and the intelligent machine.<sup>11</sup> The performance *Pandora’s DropBox* by Katja Heitmann is an example of posthuman performance, because it explores relations between human beings and machines and thereby also raises questions about what defines notions of the human. In order to clarify how *Pandora’s DropBox* can be positioned in the field of posthuman performance practices, I briefly exemplify some practices from the field in which relations between humans and machines are addressed. During my exploration of literature on such practices, I observed that we can roughly distinguish between three different branches of practices.

The first branch concerns practices where machines are used in order to virtually develop live performances. For example, choreographers like Merce Cunningham, Trisha Brown, William Forsythe, Wayne McGregor, Emio Greco and Deborah Hay incorporated computer software such as *Field* by OpenEndedGroup and *Lifeforms* in their choreographic practices, in order to create new choreographies. These programs realize the possibility to digitally simulate the moving anatomical body. The practice of movement computing for live performances has, for example, been studied by: Scott

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<sup>6</sup> Francesca Ferrando, “Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialism: Differences and Relations,” *Existenz: An International Journal in Philosophy, Religion, Politics, and the Arts* 8, no. 2 (Fall 2013): 26, <https://existenz.us/volumes/Vol.8-2Ferrando.html>.

<sup>7</sup> Ibidem, 26-32.

<sup>8</sup> Ibidem, 26.

<sup>9</sup> Francesca Ferrando, “Towards A Posthumanist Methodology: A Statement,” *Frame: Journal of Literary Studies* 25, no. 1 (May 2012): 9-18, <http://www.tijdschriftframe.nl/25-1-narrating-posthumanism/francesca-ferrando-towards-a-posthumanist-methodology-a-statement/>.

<sup>10</sup> Ibidem, 10.

<sup>11</sup> N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: The University of Chicago Press, 1999): 2.



deLahunta in "Dance Becoming Data"<sup>12</sup><sup>13</sup><sup>14</sup> and by Nicolas Sutil Salazar in "Section Editorial: Human Movement as Critical Creativity: Basic Questions for Movement Computing"<sup>15</sup> as part of a special issue on computing the corporeal in *Computational Culture: A Journal of Software Studies*; by Pablo Ventura and Daniel Bisig in "Algorithmic Reflections on Choreography"<sup>16</sup>; by Maaïke Bleeker in *Transmission in Motion: The Technologizing of Dance*<sup>17</sup> by Maaïke Bleeker.

Secondly, I would like to address a branch of posthuman performance practices, in which artists enhance their own bodies according to what they envision their bodies to become and thereby raise questions about what the body's nature is. A first example is the practice of carnal art by ORLAN, who is known for her performance surgeries, during which her body was surgically altered to adopt characteristics of figures in renowned paintings like the Mona Lisa.<sup>18</sup> Spectators witnessed the spectacle of ORLAN's modified body through real-time video screenings. With her artistic oeuvre, ORLAN complicated and reconfigured notions of identity and its relation to the body. In another example, the performance artist Stelarc frequently enhanced his own body with prostheses. In 2007, an ear made of human cartilage was surgically fixed to his left arm and in so doing, Stelarc permanently modified his body architecture.<sup>19</sup> The work of both the artists ORLAN and Stelarc raise questions about what the nature of the human body is.

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<sup>12</sup> Scott DeLahunta, "Dance Becoming Data Part One: Software for Dancers," *Computational Culture: A Journal of Software Studies*, no. 6 (28 November 2017), <http://computationalculture.net/dance-becoming-data-part-one-software-for-dancers/>.

<sup>13</sup> Scott DeLahunta, "Dance Becoming Data Part Two: Conversation Between Anton Koch and Scott DeLahunta," *Computational Culture: A Journal of Software Studies*, no. 6 (28 November 2017), <http://computationalculture.net/dance-becoming-data-part-two-conversation-between-anton-koch-and-scott-delahunta/>.

<sup>14</sup> See also: Scott DeLahunta, "Software for Dancers: Coding Forms," *Performance Research* 7, no. 2 (August 2014): 97-102, <https://doi.org/10.1080/13528165.2002.10871858>.

<sup>15</sup> Nicolas Sutil Salazar, "Section Editorial: Human Movement as Critical Creativity: Basic Questions for Movement Computing," *Computational Culture: A Journal of Software Studies*, no. 6 (28 November 2019), <http://computationalculture.net/section-editorial-human-movement-as-critical-creativity-basic-questions-for-movement-computing/>.

<sup>16</sup> Pablo Ventura and Daniel Bisig, "Algorithmic Reflections on Choreography," *Human Technology* 12, no. 2 (November 2016): 252-288, <http://dx.doi.org/10.17011/ht/urn.201611174656>.

<sup>17</sup> Maaïke Bleeker, ed., *Transmission in Motion: The Technologizing of Dance* (Oxon: Routledge, 2017).

<sup>18</sup> ORLAN, "Orlan's Art of Sex and Surgery," interview by Stuart Jeffries, *The Guardian*, July 1, 2009, <https://www.theguardian.com/artanddesign/2009/jul/01/orlan-performance-artist-carnal-art>.

<sup>19</sup> "Ear on Arm," Stelarc, accessed on September 1, 2018, <http://stelarc.org/?catID=20242>.

In the third branch, machines fully take over the stage and replace human performers, which is the case in *Deep Present* by Jisun Kim and in *The Internet of Things* by Urland. Another example, which is not a live performance but an online science fiction story, is *The Modular Body*,<sup>2021</sup> by digital artist Floris Kaayk. The artist created *OSCAR*: a living artificial organism made of human stem cells that is composed of separate brain, lung, heart, kidney and limb modules. The online story shows videos, images and stories about the birth of the organism, how the creator of OSCAR donated his own blood for the artificial organism and offers discussions whether OSCAR might have feelings and deserves his own rights. This project addresses the boundaries of notions of machines and humans and explores where the human ends, where the machine starts, and vice versa. Posthuman performance practices that regard the relations between humans and machines have exuberantly been examined in performance studies discourses, under the labels of digital performance<sup>22</sup> by Dixon, technocorporeal performance<sup>23</sup> by Gingrich-Philbrook and Simmons, virtual theatre<sup>24</sup> by Giannachi and cyborg theatre<sup>25</sup> by Parker-Starbuck, to name but a few.

### III Hypothesis and research questions

I am aware that the performances I mentioned are just a few examples of posthuman performance practices and that many more types of practices can be recognized in the field. It is not my goal, however, to map the field of posthuman performances that address relations between humans and machines. I mentioned these specific practices to be able to clarify how *Pandora's DropBox* relates to these practices. Although Katja Heitmann addresses whether a human being can become a perfectly conditioned machine, there are physically no digital technologies used in the performance of *Pandora's DropBox* to

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<sup>20</sup> "Het Modulaire Lichaam: Een online science fiction verhaal," Next Nature, accessed on September 1, 2018, <https://www.nextnature.net/nl/projecten/het-modulaire-lichaam/>.

<sup>21</sup> "The Modular Body," The Modular Body, accessed on August 31, 2018, <http://www.themodularbody.com/>.

<sup>22</sup> Steve Dixon, *Digital Performance: A History of New Media in Theatre, Dance, Performance Art, and Installation*, (Cambridge: The MIT Press, 2007).

<sup>23</sup> Graig Gingrich-Philbrook and Jake Simmons, "Reprogramming the Stage: A Heuristic for Posthuman Performance," *Text and Performance Quarterly* 35, no. 4 (October 2015): 323-344, <http://dx.doi.org/10.1080/10462937.2015.1075169>.

<sup>24</sup> Gabriella Giannachi, *Virtual Theatres: An Introduction* (London: Routledge, 2004).

<sup>25</sup> Jennifer Parker-Starbuck, *Cyborg Theatre: Corporeal/Technological Intersections in Multimedia Performance* (Hampshire: Palgrave Macmillan, 2011).

illustrate human-machine relations, which means that these relations are addressed in a different way than literally performing such interactions. Also, Katja Heitmann did not use computer programs in order to develop her choreography and the performers in *Pandora's DropBox* have not been physically altered. Instead, I presume that Heitmann presents human beings who examine their inner machines: they regard the functioning of their own bodies as machines to get an understanding of how machines function and to explore relations between being human and machine. Accordingly, my **hypothesis** is that *Pandora's DropBox* presents a philosophical approach towards the exploration of human-machine relationships, brought about by means of theatrical tools, namely choreography and stage directions. In this research, I examine how human beings have become perfectly conditioned machines in Katja Heitmann's *Pandora's DropBox*, what this becoming-machine looks like in the performance and what kind of perspectives the performance provides about topics such as 'the human', 'the machinic body' and 'the posthuman'. This leads to the following **research question** that governs my research:

**What philosophical ideas about 'the posthuman' emerge in Katja Heitmann's *Pandora's DropBox*?**

The research is divided into three chapters, examining the creation process of *Pandora's DropBox*, the live performance and finally how the project functions as an object of reflection. These three chapters are guided by the following sub-questions:

1. How does the choreography of *Pandora's DropBox* support an understanding of the human being as a perfectly conditioned machine?
2. How does Katja Heitmann use 'the error' as a dramaturgical tool in the live performance of *Pandora's DropBox*?
3. How can we position the staging of 'problematic transhumans' in *Pandora's DropBox* in transhuman philosophical discourses?

**IV Theoretical framework and methodology**

The first chapter of this research, "Programming *Pandora's DropBox*," is focused on the creation process of *Pandora's DropBox*. First off, I examine two online interviews with

Katja Heitmann by Spring Utrecht<sup>26</sup> and The Creators Project<sup>27</sup>, tracing ideas of the choreographer that foregrounded the concept of understanding human beings as perfectly conditioned machines. I then analyze how these ideas have been translated into the choreography of the performance. My usage of the term choreography refers to the actions writing and dancing, drawing from Mark Franko, choreographer and Professor of Dance and Theatre.<sup>28</sup> Hence, I explain how Katja Heitman wrote the choreography to direct the movements of the performers. I can clarify certain aspects of the choreography due to the following sources: my own observations during my attendance of *Pandora's DropBox*<sup>29</sup>; my attendance of a workshop<sup>30</sup> by Heitmann where she gave background information about the creation process of *Pandora's DropBox* and invited us to practice and perform the choreography of conditioning the eyes; my personal interview<sup>31</sup> with Heitmann in which she explicitly clarified the choreographic organization and pointed out important cues for the performers and her ideas behind the actions that happen on the scene, while we watched a video registration of *Pandora's DropBox*. After this analysis, I propose in this chapter to understand the performers as computer machines and the choreography as a software program. My definition of the computer machine derives from computer scientist and artist A. Michael Noll, who wrote in a journal article, "Choreography and Computers,"<sup>32</sup> that a computer machine is only capable of performing those operations for which it has been programmed. Furthermore, the notion of software program is explained by Brenda Laurel, Doctor of Theatre, as a set of instructions that defines potential actions, in her study *Computers as Theatre*<sup>33</sup>. By means of my proposition, I analyze how the choreography functions as a set of instructions and how the performers engage with the choreographic program. Furthermore, I explain how we

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<sup>26</sup> Katja Heitmann, "Interview met Katja Heitmann," *Spring Utrecht*, April 22, 2017, <https://www.springutrecht.nl/artikel/interview-met-katja-heitmann>.

<sup>27</sup> Heitmann, "Katja Heitmann laat mensen bewegen alsof ze machines zijn," *Vice: The Creators Project*.

<sup>28</sup> Mark Franko, "Writing for the Body: Notation, Reconstruction, and Reinvention in Dance," *Common Knowledge* 17, no. 2 (Spring 2011): 321-334, <https://doi.org/10.1215/0961754X-1188004>.

<sup>29</sup> *Pandora's Dropbox*, directed by Katja Heitmann, Spring Festival 2017, Theater Kikker, Utrecht, May 22, 2017.

<sup>30</sup> *Tearing Machine workshop*, facilitated by Katja Heitmann, Festival Why Not, De School, Amsterdam, October 28, 2017.

<sup>31</sup> Katja Heitmann (choreographer and artistic director of *Pandora's DropBox*), interview with the author, Den Bosch, February 28, 2018.

<sup>32</sup> A. Michael Noll, "Choreography and Computers," *Dance Magazine* 41, no. 1 (January 1968): 43-45, <http://noll.uscannenber.org/Art%20Papers/Choreography.pdf>.

<sup>33</sup> Brenda Laurel, *Computers as Theatre*, 2<sup>nd</sup> ed. (New Jersey: Pearson Education, Inc, 2014).

can perceive the performers as 'machinic bodies'<sup>34</sup>, theorized by Lecturer in Drama and Theatre Rosemary Klich as manifestations of posthuman bodies in multimedia performances that act as slaves to the instruction of informational codes. Finally, I indicate how the functionality of the performers executing the choreographic program led to the rising of bodily responses that the team of *Pandora's DropBox* had not anticipated.

The second chapter of this research is based around the live performance of *Pandora's DropBox* and is called "Performing *Pandora's DropBox*." It appeared in chapter one that the bodies of the performers responded to the execution of the choreographic program in a way that the team did not expect. Since I understand the performers as computer machines in the analyses that are brought forth in the first and second chapters, I suggest in this chapter to analyze the manifestation of unforeseen events in the system as 'errors'. This term derives from the volume *Error: Glitch, Noise, and Jam in New Media Cultures*<sup>35</sup>, edited by Mark Nunes, and stands for a discrepancy in a preprogrammed routine of a system. Based on the theory of the 'aesthetics of the error' by Doctor and lecturer in digital media Tim Barker, chapter two of the volume *Error*, I examine how errors appear in the live performance of *Pandora's DropBox*. I focus on the deliberate artistic intention to present the appearance of errors in the live performance. Lastly, I conclude how this intention serves as a dramaturgical tool to raise questions about humans, machines and humans as error-free beings.

Lastly, chapter three, "Reflecting through *Pandora's DropBox*," zooms out of the project and moves towards an evaluation on how *Pandora's DropBox* functions as an object of reflection that raises questions about transhuman philosophy in a posthuman era. I consulted the volume *Post- and Transhumanism: An Introduction*<sup>36</sup> in order to get a general understanding of the philosophy. This source is a collection of twenty essays, all written by different authors who expound various topics with reference to a current phenomenon in scholarly debates, namely the reconsideration of what it means to be human by virtue of our engagement and interaction with modern technologies. A common view of what 'the transhuman' stands for in the volume, is the reference to the

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<sup>34</sup> Rosemary Klich, "The 'unfinished' subject: Pedagogy and performance in the company of copies, robots, mutants and cyborgs," *International Journal of Performance Arts & Digital Media* 8, no. 2 (2012): 161-163, <https://doi.org/10.1386/padm.8.2.155.1>.

<sup>35</sup> Mark Nunes, ed., *Error: Glitch, Noise, and Jam in New Media Cultures* (New York: The Continuum International Publishing Group, 2011).

<sup>36</sup> Robert Ranisch and Stefan Lorenz Sorgner, eds., *Post- and Transhumanism: An Introduction* (Frankfurt am Main: Peter Lang GmbH, 2014).

human being who is in a transition of becoming posthuman, an ultimate condition in which aging and biological limitations have been eliminated. I mainly studied the following articles of the volume: "Introducing Post- and Transhumanism"<sup>37</sup> by Robert Ranisch and Stefan Lorenz Sorgner; "Pedigrees"<sup>38</sup> by Stefan Lorenz Sorgner; "Prometheus: Performer or Transformer?"<sup>39</sup> by Trijsje Franssen; "Utopia"<sup>40</sup> by Michael Hauskeller; "Brave New World"<sup>41</sup> by Curtis D. Carbonell; "Life Extension: Eternal Debates on Immortality"<sup>42</sup> by Sascha Dickel and Andreas Frewer; "Ontology"<sup>43</sup> by Thomas D. Philbeck; "Nature"<sup>44</sup> by Martin G. Weiss. From the articles, I distilled transhuman aspirations, their utopias, how they deal with technologies and how they regard human nature. I compared this with Katja Heitmann's ideas that foregrounded the choreography of *Pandora's DropBox* and examine to what extent her ideas correspond to transhuman philosophy. Furthermore, I particularly analyze in this last chapter how we can consider the presented human beings as 'problematic transhumans', a term that was coined by Curtis D. Carbonell, Assistant Professor of English, as enhanced individuals who have been conditioned to become perfect, stable citizens in a fictional world in the novel *Brave New World*.<sup>45</sup> Due to this conditioning, they have lost key ingredients of being human and therefore are problematic transhumans, according to Carbonell. I examine how we can evaluate the presented human beings in *Pandora's DropBox* as problematic transhumans in two ways: as human beings that face problems in the functioning of their biological design and as a presented version of the transhuman being that does not correspond to transhuman philosophy. Finally, I conclude the chapter with an analysis of how we can reframe the evaluation of the problematic transhuman beings in *Pandora's DropBox* as human beings in a posthuman world who have 'unfinished' bodies. Again, I draw here from Rosemary Klich's theory on manifestations of posthuman bodies, referring to the

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<sup>37</sup> Ranisch and Sorgner, "Introducing Post- and Transhumanism," in *Post- and Transhumanism: An Introduction*, 7-27.

<sup>38</sup> Stefan Lorenz Sorgner, "Pedigrees," in *Post- and Transhumanism: An Introduction*, 29-47.

<sup>39</sup> Trijsje Franssen, "Prometheus: Performer or Transformer?" in *Post- and Transhumanism: An Introduction*, 73-82.

<sup>40</sup> Michael Hauskeller, "Utopia," in *Post- and Transhumanism: An Introduction*, 101-108.

<sup>41</sup> Curtis D. Carbonell, "Brave New World," in *Post- and Transhumanism: An Introduction*, 109-118.

<sup>42</sup> Sascha Dickel and Andreas Frewer, "Life Extension: Eternal Debates on Immortality," in *Post- and Transhumanism: An Introduction*, 119-131.

<sup>43</sup> Thomas D. Philbeck, "Ontology," in *Post- and Transhumanism: An Introduction*, 173-183.

<sup>44</sup> Martin G. Weiss, "Nature," in *Post- and Transhumanism: An Introduction*, 185-200.

<sup>45</sup> Carbonell, "Brave New World," in *Post- and Transhumanism*, 110.

'unfinished' body<sup>46</sup> that acclaims process and constantly redefines itself. By means of this concept, I shift the focus from the problematic side of the presented posthuman beings towards their potentials.

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<sup>46</sup> Klich, "The 'unfinished' subject," *International Journal of Performance Arts & Digital Media*, 165-166.

# CHAPTER 1

## PROGRAMMING *PANDORA'S DROPBOX*



## 1.1 Ideas about the functioning of machines

Katja Heitmann's *Pandora's DropBox* is based on the question whether a human being can become a perfectly conditioned machine. Since the creation process as well as the performance of *Pandora's DropBox* are radical attempts of turning the human being into a perfectly conditioned machine, I will not answer Heitmann's question either with a yes or no. Instead, I treat my analysis of *Pandora's DropBox* from the perspective that human beings indeed are perfectly conditioned machines. This perspective allows me to examine how these portrayed humans function as such. Furthermore, I mentioned in my hypothesis that philosophical ideas about human-machine relationships in *Pandora's DropBox* are established through theatrical tools. What I particularly discovered in my analysis of the interviews with Katja Heitmann by Spring Utrecht and the Creators Project is that choreography played a substantial role in Heitmann's research for *Pandora's DropBox*. Heitmann explains in the interviews how she relies on her understanding of choreography to comprehend certain events of the world that she inhabits. Correspondingly, I noticed that she applies her choreographic expertise to transform her understanding of the world into performative formats. Naturally, *Pandora's DropBox* was also developed in this way, which means that choreography is one of the most substantial theatrical tools through which Katja Heitmann researched the approach of human beings as perfectly conditioned machines. This method, however, raises the following question: **How does the choreography of *Pandora's DropBox* support an understanding of the human being as perfectly conditioned machines?**

Before I elaborate on how the choreography was organized, I first summarize Heitmann's ideas about machines that informed the creation process of the choreography for *Pandora's DropBox*. In the introduction to this research, I mentioned Katja Heitmann's presumption that humans are becoming some sort of machines and that this means that humans are thinking less autonomously and act automatically. Humans unquestionably obey rules, which makes everything in a society perfect and predictable, according to Heitmann. In addition, Heitmann thinks that increasingly more often we are comparing the capacities of humans with those of machines.<sup>47</sup> She refers in the interview with The Creators Project to the example of a machine's liability in functioning 24 hours a day without making a single mistake, whereas a human only functions thoroughly for a couple of subsequent hours and is more likely to make mistakes. Heitmann thinks that this comparison causes us to expect more from the performance of humans, such as working

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<sup>47</sup> Heitmann, "Katja Heitmann laat mensen bewegen alsof ze machines zijn," *Vice: The Creators Project*.

longer subsequent hours and flawless in the meantime. Lastly, Heitmann observes in our society that today, we are immensely focused on matters such as ‘purpose’ and ‘efficiency’ and that we compute the outcomes of all our acts, she explains in the interview with Spring Utrecht.<sup>48</sup> She concludes that nowadays, our society functions solely on quantitative data. Regarding these features that define how humans are becoming machines in the eyes of Heitmann, we can find the following ideas that informed the choreography for *Pandora’s DropBox*: Human beings as perfectly conditioned machines act automatically and flawless; they are inexhaustible and act efficiently; everything they do is well computed and suffices the promise of a perfect and predictable world.

Heitmann told in the interview with Spring Utrecht that she wondered whether there exists such a thing as ‘efficient choreography’, a choreography that is fundamentally driven by principles of logic and based on total control of physical and mental strengths, technical perfection. In order to execute this choreography, the performers in the team of Heitmann were assigned to always maintain balance, make movements with the highest possible amount of control, avoid any conflict and always choose actions that would add up to or even increase the harmony of the composition. They intended to work this out during the creation process by controlling their consciousness, in order to condition their body postures and manners of moving. Also, Heitmann and her team of performers wanted to cancel out emotions from their bodies, to make it less human and only leave room for the reasoning mind, says Heitmann in the interview with The Creators Project.<sup>49</sup> What are the outcomes of this inquiry and what eventually constituted the ‘efficient choreography’ for *Pandora’s DropBox*?

## 1.2 ‘Efficient choreography’

I will now expound on some aspects of the organization of the ‘efficient choreography’ of *Pandora’s DropBox*, based on my experiences as audience member in *Pandora’s DropBox* and from my interview with Katja Heitmann. Principally, the choreography is not simply a guide of *where* to move your body, as it is much more an instruction of *how* to move your body. It consists of rules that direct towards a complete new way of moving, of which I highlight the following aspects: endurance; tempo of executing movements; how to walk and blink the eyes; the codes ‘stand-by circle’, ‘off-focus’ and ‘suffering’ as commands to execute specific actions.

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<sup>48</sup> Heitmann, “Interview met Katja Heitmann,” *Spring Utrecht*.

<sup>49</sup> Heitmann, “Katja Heitmann laat mensen bewegen alsof ze machines zijn,” *Vice: The Creators Project*.

The first aspect of the choreography I wish to highlight is endurance. The performers are obligated to always execute the choreography and never stop doing this, while they are performing *Pandora's DropBox* with the presence of audience members. Pausing or stopping their performance means that a performer gives up his control, and this goes against the promise of *Pandora's DropBox* to always be entirely in control. Thus, the performance always continues, regardless of the endurance of the performers. Then, the tempo of the performance is the next remarkable aspect. Everything the performers do - from moving the head, to walking, to crunching and to lifting other bodies - happens in the same tempo, which is extremely slow compared to how human beings usually move. Take for example the tempo of walking, which is about twenty times slower than a regular walking tempo. The decision to persistently move in a slow pace corresponds to the idea of taking full control over physical and mental strengths. The consequence of moving in a continuous tempo is that movements sometimes must be executed against momentum. Heitmann explained to me that this means that the performers cannot use the force of gravity to finish their movement, since this would then change the tempo of the movement. Hence, moving slowly ultimately results in constraining the muscles for long times.

As for the directions of how to walk, I already mentioned that the walking tempo is equally slow as the overall tempo. Additionally, the timing of walking and placing the feet has been computed carefully and I will explain the construction here. The performance is accompanied by an audible pulsing sound that consists of repetitions of three pulses. The first pulse out of three can be recognized due to its different tone than the other two. The pulse guides the performers to establish their walking pace, as the timing of a single step lasts six pulses. When six pulses have passed, the next step will be initiated. The performers all walk in tune with each other, as they all use the pulsing sound to align their manners of walking. The distance between the performers along the sides of the hexagon, along which they are walking in the beginning of the performance, is the same and each side of the hexagon is long enough for six steps to fit. Also, the timing of the blinking of the eyes has been calculated and is directed by the pulsing sound. The performers keep their eyes open during three repetitions of three pulses and then close their eyes only during the fourth repetition of the pulses. After the fourth, they open their eyes again and the next cycle of four repetitions of three pulses starts over. The performers keep on doing this during the whole performance. In addition to this, the performers are not allowed to move their eyeballs. They always keep the eyes steady and they must move their entire head when they want to look in a different direction. Because of this, the eyeballs always stay in the middle of the eye-sockets.

Next, Katja Heitmann and her team use three codes as internal language in their rehearsals that refer to specific actions and manners of standing of the choreography. The first, 'stand-by circle', refers to a state of being in which the performer stands still and waits for the next cue to continue his performance. In this state, the posture is straight, the arms are fixed steadily next to the torso, knees are slightly bended, and the upper body of the performer gently cradles to the left and to the right. The second code, 'off-focus' looking refers to how the performers look at other people in the room. It means that performers never really look people in the eyes. Instead, they slightly look somewhere next to the eyes with the result that they never make eye contact with anyone. The third and last code, 'suffering', refers to a position on the floor, when the performers lay on their back and then lift their legs and their upper bodies and balance on their bottom. Internally in the team, this act is called "suffering", because the performers have to tighten their core muscles for a long time, due to the slow tempo of performance, which can be an exhausting and painful act. Not that this is an internal label that is only applied within the team, the performance does not intent to communicate that the performers are suffering.

Other than the aspects I mentioned here, I assume that there are many more aspects of the choreography that are calculated or directed in specific ways. For instance, how the performers turn on the spot, how they interact with other performers, how they help each other getting up from the floor and, finally, where they move. Heitmann clarified that every movement in the performance is scripted and that the audio is full of cues. Performers know exactly what they do next, with whom they are about to interact and how they do this. Even a seeming coincidence such as the falling of a performer is a fixed action in the choreography, which advocates the idea that this choreography leaves no space for randomness, chance, fate, accidents or coincidences to occur. However, I do not intend to expose the entire construction of the choreography of *Pandora's DropBox*. On the contrary, I intended to argue how the aspects I marked here – endurance, tempo, calculation of walking and blinking the eyes, 'stand-by circle', 'off-focus' looking and 'suffering' – all imply the approach of human beings as perfectly conditioned machines. These aspects of the choreography suggest that the performers should move automatically and that they are inexhaustible, how the timing of movements has been computed and how performers are always forced to constrain their bodies.

### 1.3 The computer machine

By virtue of the previous analysis of the choreography, it became clear that the choreography is constructed as a set of rules that directs how and where the performers in *Pandora's DropBox* move. By means of this theatrical tool, the performers are understood as machines who act automatically and well calculated. Katja Heitmann mentions nowhere what kind of machines she specifically refers to in her research for *Pandora's DropBox*. However, she does give hints of how she thinks that machines function, which I also mentioned earlier. Summarizing and analyzing these ideas and aspects of the choreography brought me to the following suggestion: The human beings as machines in *Pandora's DropBox* particularly can be understood as computer machines who carry out the choreography that evenly can be understood as a computer software program. I will briefly explain what computers and programs do so that I can clarify later why I interpret the machines and the choreography in *Pandora's DropBox* as computer machines and a software program.

In his essay about choreography and computers, A. Michael Noll briefly describes what computers in 1967 can do: "Computers are capable of performing only operations for which they have been programmed and which they have been instructed to perform."<sup>50</sup> While this claim is more than 50 years old, it still evidences what computers in their essence do. Hence, in my own words and in short, computers perform prescribed operations.<sup>51</sup> In addition, computers run programs, also called software programs, which are sets of instructions that define potential actions, according to Brenda Laurel.<sup>52</sup> Software programs are virtual applications, but they are accessible through the physical components of a computer. These are called hardware and examples of these physical components are screens, keyboards, mice, speakers, logic boards, processors, memory cards, graphics processing units, hard drives, cooling fans and more. The specifications of the hardware and the collaboration with the computer software define the functionality of the computer.

Placing computers and programs in the context of dance performances, how can they be related to choreography? First, I briefly elaborate on a definition of choreography. According to Mark Franko, the word choreography is a neologism that refers to two kinds

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<sup>50</sup> Noll, "Choreography and Computers," *Dance Magazine*: 43.

<sup>51</sup> I am aware that this is only one perspective on the functioning of computers, a particularly traditional one, and that computers nowadays can be self-learning machines that, for example, can write their own programs and operate in new directions.

<sup>52</sup> Laurel, *Computers as Theatre*, 2<sup>nd</sup> ed., 52.

of action: “writing (graphie) and dancing (choros).”<sup>53</sup> Franko continues: “the word choreography seems to encode a theory of the relation of dance to scripturality – of writing as movement and dance as text.”<sup>54</sup> Hence, I understand from this that making a choreography means writing movement. Writing, therefore, is a connecting factor that can relate creating a choreography to the act of writing a program. Both choreographies and programs are written, and both are performed by either performers or computers that both meet certain specifications in their material design. Additionally, Brenda Laurel suggests in *Computers as Theatre* how a program, program code and functionality can be interpreted in a theatrical context. She explains: “In theatrical terms, a program (or a cluster of interacting programs) is analogous to a script, including its stage directions. [...] Program code is equivalent to the words of the script. [...] Functionality is the equivalent to the script parsed, not by words but by actions.”<sup>55</sup> Complementary to Laurel’s analogy, I suggest in this research that program also can be analogous to choreography and stage directions, program code to the instructions that make up the choreography, and functionality to the actual performance of the program, executed by a machine in accordance with the program code.

In *Pandora’s DropBox*, I propose that the performers are computer machines. They are composed of hardware: the totality of their mind and body, consisting of specific organs, limbs, joints, length and weight of body parts, strength, but also endurance, technique, knowledge, emotions and thoughts. The choreography is the software program. The choreographic program was written by Katja Heitmann, whose role is equivalent to the role of the programmer. The program code is the system of instructions of how and where to move the body. The code defines potential actions and a desired outcome. The potential actions and desired outcome of the performance in *Pandora’s DropBox* as I described them before are: Human beings as perfectly conditioned machines act automatically and flawlessly; they are inexhaustible and act efficiently; everything they do is well computed and suffices the promise of a perfect and predictable world. Now that we consider the performers as computer machines and the choreography as a program, how do they function? What happens when the computers execute the program?

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<sup>53</sup> Franko, “Writing for the Body,” *Common Knowledge*: 321.

<sup>54</sup> *Ibidem*.

<sup>55</sup> Laurel, *Computers as Theatre*, 2nd ed., 52-53.

## 1.4 Functionality

A computer has a button to switch the device on or off. From the moment it is switched on the computer automatically carries out tasks for which it is programmed; the computer cannot deviate from its configuration, which means that it cannot make mistakes, and the computer never stops its operation, unless it receives a command to stop. Translating these features of computers to those of human beings as computers in *Pandora's DropBox*, I presuppose that the performers solely carry out the choreography, since this is the only thing they are programmed to do. Also, they can't do anything wrong, since they do not interpret their role, but instead they obey to the instructions of the choreography. This understanding of human beings as computer machines corresponds to Rosemary Klich's understanding of the posthuman body that manifests in a performance as robotic or machinic, which is understood as such when the body is perceived "as a slave to the instruction of informational code."<sup>56</sup> The machinic bodies in *Pandora's DropBox* function automatically, by which I mean that they continue their performance, even if it requires a lot of effort, strength and endurance and the performers really must struggle to keep on performing. Whether it is easy or difficult to execute the choreography completely depends on the configuration of the performers. The system of the choreographic program, however, does not distinguish between the kinds of machines that run the program. The program simply must be executed and the machines automatically follow this command.

In the interview with Spring Festival, Heitmann mentions a fascinating aspect of her "choreographic search"<sup>57</sup> for total control. She established the rules of the choreographic program. The execution of the program by the performers as computer machines brought along unanticipated outcomes, namely that controlling the entire body to the extreme automatically provoked shaking, sweating and sniveling. Obviously, when bodies are treated as I described above, they heat up, muscles get tired and eyes get dry, but these outcomes were not anticipated in the original idea of creating a human being as a perfectly conditioned machine. Heitmann says that this inevitable arising of all kinds of body fluids was the greatest miracle of the creation process because this silent protest of the muscles, sweat and tears demonstrated that even when humans think they control everything, there will always remain matters that are unforeseen. When Katja Heitmann encountered these bodily responses that she had not foreseen, she nevertheless included

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<sup>56</sup> Klich, "The 'unfinished' subject," *International Journal of Performance Arts & Digital Media*, 161.

<sup>57</sup> Heitmann, "Interview met Katja Heitmann," *Spring Utrecht*.

the possibility of their emergence in the choreography. Heitmann did not change the choreography in order to avoid these bodily responses from happening, for example by making the choreography easier. The choreography is the choreography, the program is the program, and this is the functionality of the program as it is executed by the computer machines in *Pandora's DropBox*.

## 1.5 Conclusion

My proposition here, to regard the choreography in *Pandora's DropBox* as a software program that is executed by the performers as computer machines, led me to an answer to the sub-question that governed this chapter of my research. I examined how the choreography in *Pandora's DropBox* supports an understanding of human beings as perfectly conditioned machines, namely by means of endurance, continuous tempo, computing footsteps and the blinking of eyes and using codes as commands to execute specific actions. I learned that the performers in *Pandora's DropBox* obey to the rules that are defined in the choreography and do this automatically. They do not interpret their role, but they simply execute commands and therefore their appearances are the outcomes of the choreography that functions as a pre-set program. The consequences of performing the choreographic program are draining and shaking bodies, which strokes with the primary intention to be entirely in control and create a perfect and predictable world. Yet, Heitmann decided to keep the conditions of *Pandora's DropBox* in a way that they did not reduce the chances of these outcomes to happen. Ultimately, audience members in the performance of *Pandora's DropBox* encounter these bodily responses within a meter in front of their eyes and it even seems to be the most magical aspect of the whole piece. In the next chapter, I will direct the attention towards this deliberate artistic choice to keep the possibility for these responses to happen, and how this choice turns *Pandora's DropBox* into an object of reflection through which we can consider what it means to be human.



## **CHAPTER 2**

### **PERFORMING *PANDORA'S DROPBOX***

## 2.1 Error

“While tearing and sweating and having vivid running noses, the six bodies execute their tasks. They act without emotions. And yet, they touch”<sup>58</sup> (my translation).

“The slow-motion accurately makes the physical control visible, but it also betrays the effort: muscles start to shake uncontrollably. Snot, sweat and tears neither can be choreographed. Heitmann’s robot humans subtly get something touching, pitiful. This twofold is meaningful and very beautiful”<sup>59</sup> (my translation).

“Even though their emotions seem deactivated, the body, where a last bit of humanity is hiding, is protesting. It is sweating and tearing and shaking, when once again it slopes backwards in super slow motion onto the floor”<sup>60</sup> (my translation).

These quotes originate from three reviews of *Pandora’s DropBox* in Dutch national papers. The performance critics mention how the bodies in the performance shake, sweat and drain. Besides, all the critics recognize that these bodily responses indicate a turning point in the performance. The critics first described in their reviews how the bodies in *Pandora’s DropBox* move towards perfection and look like spiritless robots. However, the bodily responses evoked contradicting ideas about what the critics associated the bodies with, for instance compassion, effort, duality, beauty, human, protest, the inevitable and meaning. How can it be that such interpretations are triggered in a performance that is entirely constructed around the quest for control, perfection and the elimination of human emotions and irregularities? In the conclusion of the previous chapter, I briefly brought up that the functionality of the computer machines executing the choreographic

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<sup>58</sup> Wendy Lubberding, “De Tragiek van de Perfectie,” review of *Pandora’s DropBox*, directed by Katja Heitmann, *Theaterkrant*, May 20, 2017, <https://www.theaterkrant.nl/recensie/pandoras-dropbox/katja-heitmann/>.

<sup>59</sup> Mirjam van der Linden, “Subtiel aandoenlijke robotmensen in Pandora’s Dropbox,” review of *Pandora’s DropBox*, directed by Katja Heitmann, *De Volkskrant*, May 26, 2017, <https://www.volkskrant.nl/cultuur-media/subtiel-aandoenlijke-robotmensen-in-pandora-s-dropbox~b2c7b337/>.

<sup>60</sup> Francine van der Wiel, “Zo beklagenswaardig en eenzaam is volmaaktheid,” review of *Pandora’s DropBox*, directed by Katja Heitmann, *NRC.nl*, May 23, 2017, <https://www.nrc.nl/nieuws/2017/05/23/zo-beklagenswaardig-en-eeenzaam-is-volmaaktheid-9936436-a1560111>.

program in *Pandora's DropBox* results in bodies that shake, sweat and drain. At a first glance, this goes against the idea of creating a perfect and predictable world. However, I will argue how Katja Heitmann's decision to bring these contradictive events on stage still adds up to creating the perfect and predictable world in *Pandora's DropBox*. In order to do this, I continue to understand the human beings in the performance as computer machines and the choreography as a software program. I concluded before that the bodily responses simply are the outcomes of how the computer machines and the choreographic software program function. Therefore, I won't regard the bodily responses as mistakes that should not have happened during the performance of *Pandora's DropBox*. Instead, I will regard these events as indications that the system has become unstable and actualizes 'errors'. The term error denotes "a deviation from a predetermined outcome,"<sup>61</sup> as it is defined by Mark Nunes in the volume *Error: Glitch, Noise, and Jam in New Media Cultures*.

In this chapter, I will expound on how the unintended expressions of errors in the functioning of the system of *Pandora's DropBox* became expressions of artistic intentions in the live performance. This leads to the following sub-question that is central in this chapter: **How does Katja Heitmann use 'the error' as a dramaturgical tool in the live performance of *Pandora's DropBox*?** Before I analyze the role of the errors as dramaturgical tool in the live performance, I will first clarify the theory of 'aesthetics of the error' by Tim Barker. Barker articulates his theory in chapter two of the volume *Error*, which is entitled "Aesthetics of the Error: Media Art, the Machine, the Unforeseen, and the Errant."<sup>62</sup> The author examines how the inclusion of error in digital art can function productively as expression of artistic intentions and as unintended expression within the digital medium.<sup>63</sup>

## 2.2 'Aesthetics of the error'

The volume *Error* is based on the idea that we live in a network society that is governed by a "logic of maximum performance,"<sup>64</sup> which is defined by philosopher Jean-Francois Lyotard in 1984 as "a cybernetic ideology driven by dreams of an error-free world of 100

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<sup>61</sup> Nunes, ed., *Error*, 7.

<sup>62</sup> Tim Barker, "Aesthetics of the Error: Media Art, the Machine, the Unforeseen, and the Errant," in *Error*, ed. Mark Nunes, 42-58.

<sup>63</sup> Nunes, ed., *Error*, 18.

<sup>64</sup> *Ibidem*, 3.

percent efficiency, accuracy, and predictability.”<sup>65</sup> The error, however, is the protagonist in this volume that receives constructive attention. “Error gives expression to the *out of bounds* of systematic control,”<sup>66</sup> says Mark Nunes in the introduction to the volume. According to Nunes, this volume explores “how error and noise mark a destabilizing moment within the same system that attempts to capture or banish these errant expressions.”<sup>67</sup> In chapter two, Tim Barker argues how the error creates space for creativity and brings about an art outside of the errorless algorithm, which he calls the art of the machine. According to Barker, the art of the machine is “an art in which the machine, after being built by human hands, is itself creative.”<sup>68</sup> In order to expand his theory, Barker first discusses some examples of art works to clarify how the artists set the conditions in which errors manifested in the creation processes of their art works. Then, Barker explains the process by which errors come into being, drawing on the philosophy of the virtual by Deleuze.

Discussing how artists set conditions to direct the manifestation of errors in their creation processes, Barker brings up the concept of ‘degrees of freedom’, which derives from Manuel DeLanda’s work on the philosophy of science, referring to “the ways in which an object may change.”<sup>69</sup> The degrees of freedom are the boundaries that direct the unfolding process of a system. In the context of the aesthetics of the machine and of the error, Barker explains that the degrees of freedom are set by artists upon the creative systems that they are using. The degrees restrict or design the conditions of the machine, resulting in aesthetic processes. The aesthetics of the error, thus, are not designed by the artist. Instead, the artist designs the conditions from which an error and its aesthetics emerge. Barker draws from Deleuze’s philosophy of the virtual to understand the error as a potential event that might get actualized. In Deleuze’s theory, the virtual is “a mode of reality, articulated in the emergence of new potentials.”<sup>70</sup> It is a reality that is not yet actual, but potentially might be. Potential errors become actualized through processes or conditions that destabilize the system and remove it from its usual functioning. As a result, Barker explains that “the system that seeks the actualization of unforeseen potential is also a system that has the capacity to become errant.”<sup>71</sup> It is surrounded by a

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<sup>65</sup> Ibidem.

<sup>66</sup> Ibidem.

<sup>67</sup> Ibidem, 4.

<sup>68</sup> Barker, “Aesthetics of the Error,” in *Error*, ed. Nunes, 42.

<sup>69</sup> Ibidem, 46.

<sup>70</sup> Ibidem, 51.

<sup>71</sup> Ibidem.

cloud of potentials, amongst which the potential error is waiting to become actualized by the errant system. Why, however, would you want a system to become errant and unstable? According to Barker, a system that runs through a program that has no potential for errors is essentially closed. It is stable, neat and predictable and there is no potentiality for the emergent or the unforeseen. By moving away from the usual operation into a new regime, and thus also allowing the capacity for potential errors, “we may provide the opportunity to think the unthought, to allow digital technologies to become-other.”<sup>72</sup> In sum, processes of destabilization release the system of its pre-programmed functioning, they actualize unforeseen events, including errors, and then generate a distinct aesthetics of the machine. Barker concludes that error may be a creative force, because it is a new and unforeseen event that was not formed by the artist. The artist is no longer the only creative force in the system. Instead, the artist only provides the conditions in which errors and, accordingly, meaning emerges. This implies that the artist *directs* and *initiates* processes towards potential operations and the manifestation of errors, he does not *produce* the outcomes of the operations. Barker explains, while the artist “has a general idea of the type of error that the effect will cause, due to his experience with the digital medium,”<sup>73</sup> the actual appearance of the error is generated by the interplay between the functioning of the digital system and the conditions of the system that are established by the artist.

### 2.3 Staging the functionality of the system

Returning to *Pandora's DropBox*, I explained that Katja Heitmann sought to create a choreography that is efficient and a world that is perfect and predictable. Like the ideas that are expressed in the volume *Error*, *Pandora's DropBox* can equally be regarded as a system that is governed by Lyotard's logic of maximum performance. Every action in the system contributes to harmony and balance, efficiency, accuracy and predictability. However, the functionality of human beings as perfectly conditioned computer machines executing the choreographic program in *Pandora's DropBox* revealed that qualities such as efficiency, accuracy and predictability do not inform the outcomes of the operation of the system. Instead, these qualities rather inform the functioning process of the system. By means of the choreographic program, the machines are directed towards performing in ways that deviate from their usual operation. The system thereby becomes unstable

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<sup>72</sup> Ibidem, 52.

<sup>73</sup> Ibidem, 47.

and it actualizes unforeseen events. After all, the inquiry for entire control by means of the choreographic program results in bodies that excessively sweat, shake and drain. These actual outcomes haven't been addressed anywhere in the choreographic program, which means that they appeared as unanticipated events, as errors. The bodily responses are the aesthetics of the unstable, errant system in *Pandora's DropBox*.

Heitmann emphasized in her interview with Spring Festival Utrecht that the rising of body fluids happened automatically by the conditioning of the bodies and that this was inevitable. Moreover, the performers are unable to control the number of tears or sweat that leaves their bodies, the tempo and directions of the fluids, and the performers also cannot control which muscles shake and which don't. Above all, the performers cannot stop the crying, sweating and shaking, unless they stop moving and, accordingly, give up control, which is out of the question in the performance of *Pandora's DropBox*. Hence, the rising of body fluids is the unavoidable consequence of the system's functioning. This is in accordance with what Barker argues in his theory of the aesthetics of the error, namely that the actual appearance of the system's unfolding is generated in the contact between the machine and the conditions that are established by the artist. In other words: the appearance of the system of *Pandora's DropBox* is generated when the perfectly conditioned machines encounter the choreographic program. Generated through the contact of the machine and the program: the bodily responses are the art of the machine. They demonstrate the unforeseen, the inevitable and that which cannot be controlled. Heitmann decided to bring the unintended expressions of the system's functioning of *Pandora's DropBox* to the stage and to share it with audiences, even though this signifies instability of the system. By making this choice, the emergence of bodily responses became an artistic intention in the live performance of *Pandora's DropBox*. How does the intentional manifestation of errors in the live performance of *Pandora's DropBox* create space for audience members to reflect on the performers as machines as well as human beings?

On the website of Katja Heitmann, we can read a text that introduces the live performance of *Pandora's DropBox*. Following this text, Katja Heitmann presents in *Pandora's DropBox* the perfect human in a perfect world. The text suggests that there are no conflicts in this world, that the performers strive for balance and move with tremendous care. Yet, the text closes with the following sentence: "*Pandora's DropBox* is a serene and catastrophic quest for the limits of human control."<sup>74</sup> Heitmann proposes in

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<sup>74</sup> "Pandora's Dropbox," Katja Heitmann, accessed on July 23, 2018, <http://www.katjaheitmann.com/work/pandoras-dropbox/>.

this sentence that the performance of the perfectly conditioned machines also stirs up a catastrophic side of *Pandora's DropBox*. Considering that the quest for the limits of human control is not only serene, but also catastrophic, where can we identify this aspect in the live performance? Placed around the field of artificial grass, audience members observe how the performers appear when they are understood as computer machines who automatically execute the choreographic program that was designed by Katja Heitmann. The observers can see how these machines operate in a distinct manner that is calculated to the very last detail, constraining each of their body parts. Audience members also witness how the system becomes unstable, as it starts to shake and produce tears and sweat. As it appeared from my analysis up until here, these bodily responses are the inevitable unforeseen results of the functioning of the machines that execute the choreographic program in *Pandora's DropBox*. Since these errors illustrate at this point the instability of the system of *Pandora's DropBox* and are the aesthetics of that which cannot be controlled, the quest for the limits of human control has already become catastrophic and even more potential unforeseen events are lying in the wait for being actualized. Ultimately, the limits of human control might as well be reached in an additional way, namely by a failure of the system to continue operating. Watching the system that actualizes errors, the question arises when the machines eventually will abort executing the program.

Nevertheless, audience members who attend the performance of *Pandora's DropBox* will never encounter the moment when the system fully fails to maintain control. Katja Heitmann explained to me during our conversation that the termination of the choreographic program is not part of the live performance of *Pandora's DropBox*. Heitmann directed the performance in a way that this potential error never gets actualized when audience members are attending the performance. Even though the chance of termination is part of the functionality of the machines and the program, this part of the functionality is not part of the actual live performance of *Pandora's DropBox*. The performance therefore remains predictable: the machines always continue their quest and they never reach and cross the limits of their control until they abort the operation. The ultimate catastrophic error of termination of the choreographic program and the letting go of control therefore remains virtual. However, its potential emergence is constantly attending the performance, both in the functioning of the errant system of *Pandora's DropBox*, as well as in the minds of the audience members. The latter will always remain in the dark at what point the computer machines will fail to continue executing the choreographic program and where the actual limits of control can be found.

## 2.4 Conclusion

This chapter was governed by the question how Katja Heitmann used ‘the error’ as a dramaturgical tool in the live performance of *Pandora’s DropBox*. The artistic choice to include the possibility that errors will manifest in the live performance of *Pandora’s DropBox* creates space to think that there are also matters of release of control. The bodily responses inevitably show up as the art of the machines, since they are not produced by the artist, but triggered by the circumstances of the performance. Furthermore, the virtual presence of the potential error when the machines abort the operation of the choreographic program also indicates the lack of knowing where the limits of human control are in this project. These two aspects are meaningful events in the live performance of *Pandora’s DropBox* that raise certain questions about the margins between being human or machinic. For example: *How can we relate the inevitable rising of unforeseen events to machines and programming? How can we program that which we cannot foresee? How can we program a machine in a way that it gets a free will? How can we relate errors to humans? What is an error-free human being?*

By means of the errors as dramaturgical tool in the live performance of *Pandora’s DropBox*, the performance functions as an object that engages audience members in reflecting on margins between humans and machines. The performers are becoming visible not only as machines that automatically perform a program, but also as human beings who are dedicated to put effort in performing this choreography. They don’t have a button to switch their operation on or off, but they have the free will to consistently perform the choreography. Even though the performers have the will to perform the choreography, at a certain point their bodies can no longer continue the performance due to the difficulty of the choreography. However, we never encounter the potential reality when the choreography won’t be executed anymore, and we will always remain in a tense position of not knowing where the limits of human control and margins between humans and machines really can be found in *Pandora’s DropBox*. In the chapter that follows, I will analyze how *Pandora’s DropBox* can be positioned in transhuman discourses, since it raises philosophical questions about being human and how our engagement with technologies nowadays changes how we perceive ourselves. I will argue what kind of questions the performance raises about ‘the transhuman’ in a posthuman era.



## **CHAPTER 3**

### **REFLECTING THROUGH *PANDORA'S DROPBOX***

### 3.1 'Problematic transhumans'

In the first chapter of this research, I proposed to analyze *Pandora's DropBox* from an understanding of human beings as computer machines who automatically execute the choreography that is equally understood as a software program. Furthermore, the functionality of this operation results in the manifestation of unforeseen events in the system, errors, and I elaborated in the second chapter on how Katja Heitmann used this manifestation as a dramaturgical tool in the live performance of *Pandora's DropBox*. I concluded at the end of the second chapter that Katja Heitmann opened up space by means of the dramaturgical tool of the errors to reflect on what it means to understand ourselves as machines and as human beings who inhabit the current technology- and efficiency-driven world. In this chapter I further analyze which concrete ideas and assumptions about the human in a posthuman era can be found in the creation process and live performance of *Pandora's DropBox*. In particular, I address how the bodies on stage provoke thoughts that relate to essential topics and issues in transhuman philosophies.

I have consulted the source *Post- and Transhumanism: An Introduction*<sup>75</sup> which is a collection of several articles that witness tensions between authors who support and who do not support transhumanism, reflecting in manifold ways on the transhuman utopia of the posthuman being and actual manifestations of the transhuman. From the articles, I gathered an outline of central ideas that constitute transhuman philosophy. I will argue how the bodies in *Pandora's DropBox* represent 'problematic transhumans'<sup>76</sup>, a term which was coined by Curtis D. Carbonell in the article "Brave New World."<sup>77</sup> The term refers to privileged and enhanced individuals in the novel *Brave New World* by Aldous Huxley, who "have lost passion, a key ingredient of being human, in their conditioning towards the perfect, stable citizen,"<sup>78</sup> in an insane world in which the problems of technoscience went wrong, says Carbonell. I propose that the bodies in *Pandora's DropBox* represent problematic transhumans in a double sense. Problematic on the one hand, because the bodily responses illustrate and give rise to the manifestation of unforeseen events, while initially the preprogrammed world of *Pandora's DropBox* was based around predictability, control and balance. Problematic on the other hand, because

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<sup>75</sup> Ranisch and Sorgner, eds., *Post- and Transhumanism*.

<sup>76</sup> Carbonell, "Brave New World," in *Post- and Transhumanism*, 110.

<sup>77</sup> Ibidem, 109-118.

<sup>78</sup> Ibidem, 110.

the human beings in *Pandora's DropBox* have become “apathische wezens”<sup>79</sup> (apathetic beings): They show no emotional responses or facial features, they do not interact with the audience members, they move around automatically, and they never adjust their manners of moving, even when the movements are executed at the cost of unforeseen bodily responses. This apathetic version of the transhuman being runs counter to transhuman aspirations and can therefore be regarded as problematic. Altogether, this last part of my research is governed by the following sub-question: **How can we position the staging of ‘problematic transhumans’ in *Pandora's DropBox* in transhuman philosophical discourses?** Before I analyze how we can refer to the bodies in *Pandora's DropBox* as problematic transhumans and how this helps to position the performance in transhuman philosophies, I first elaborate on central ideas of transhuman utopias, referring to the ideas that are collected in the volume *Post- and Transhumanism: An Introduction*.

### 3.2 Transhuman aspirations

The ‘transhuman’, or transitional human, stands for “the link between the human and the posthuman”<sup>80</sup> and is on his way to improve his human condition to become posthuman, according to Ranisch and Sorgner. Hence, ‘the posthuman’ as a concept in transhumanism refers to an ultimate condition. The condition can be reached by eliminating aging, overcoming human biological limitations and greatly enhancing human intellectual, physical and psychological capacities by means of reason, science and technology. Putting forward statements of transhumanism, Trijsje Franssen refers in her article “Prometheus: Performer of Transformer?” to the transhumanist Simon Young. Franssen points out how Young speaks about the destiny of the transhuman to conquer the greatest tragedies of life, which are man’s biological limitations and death. Michael Hauskeller, the author of the article “Utopia,” underlines a transhumanist utopian perspective that is very much alike, since he asserts that the ageing body and death are seen as curses in the eyes of transhumanists and that they believe “it is in our very essence to transgress boundaries, to go ever further on our way to perfection and godliness.”<sup>81</sup> Ultimately, says the author, the goal of all human action is to abolish all suffering.

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<sup>79</sup> Heitmann, “Katja Heitmann laat mensen bewegen alsof ze machines zijn,” *Vice: The Creators Project*.

<sup>80</sup> Ranisch and Sorgner, “Introducing Post- and Transhumanism,” in *Post- and Transhumanism*, 8.

<sup>81</sup> Hauskeller, “Utopia,” in *Post- and Transhumanism*, 104.

Franssen clarifies in her article that transhumanists want to take control of humanity's evolutionary future. For example, Franssen cites how biophysicist Gregory Stock regards evolution: "humanity will not merely take control of its species but – like Prometheus – create, design it, literally taking evolution [...] into its own transhuman hands."<sup>82</sup> How do transhumanists employ technologies to reach their goal? Stock believes that technologies are the key that enable us to take control of our evolution. In his article "Ontology," the author Thomas D. Philbeck also acknowledges that transhumanists endorse technologies to provide possibilities for human progress and ultimately become the human being that broke free from biological evolution and constraints. In the article "Nature," Martin G. Weiss says that the very essence of human nature in transhuman philosophy is freedom, that biological boundaries of the human body obstruct freedom, but also that this biology is not a given and therefore can be enhanced by means of technologies. Weiss:

"[...], we are [also] forced to accept that nothing is given in our biological nature and objectivity. There is no natural boundary for what humans can be, no intrinsic essence of humanity, neither in the human soul nor in human biology."<sup>83</sup>

Transhumanists therefore believe that human biology is malleable, and that natural development can be replaced with technical production. Biology can be enhanced, and enhancement finds its impact in the progression of the entire human being.

Several authors in the volume *Post- and Transhumanism: An Introduction* are ambiguous about transhuman utopian ideas that promise a prosperous future. As I already mentioned, Curtis D. Carbonell analyzed the novel *Brave New World* and discusses how the novel should be read as a utopian and a transhumanist critique. Carbonell stresses how the novel illustrates a future problematic society in which science radically affected human beings: "The characters in the novel are emotionally and physically altered to manipulate the potential of the individual in a rigid caste system."<sup>84</sup> However, Carbonell also acknowledges by referring to the position of transhumanist Nick Bostrom that the novel illustrates a future "that runs counter to the transhumanist project that would use technology to create individual flourishing."<sup>85</sup> Above this, Martin G. Weiss also refers to Nick Bostrom to emphasize how transhumanism advocates the enhancement of

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<sup>82</sup> Franssen, "Prometheus: Performer or Transformer?" in *Post- and Transhumanism*, 79-80.

<sup>83</sup> Weiss, "Nature," in *Post- and Transhumanism*, 191.

<sup>84</sup> Carbonell, "Brave New World," in *Post- and Transhumanism*, 113,

<sup>85</sup> *Ibidem*, 113.

three human central capacities: health span, cognition and emotion. Enhance health span and one will have the capacity to remain fully healthy; enhance cognition and one will improve his central intellectual capacities; enhance emotion and one will have “the capacity to enjoy life and to respond with appropriate affect to life situations and other people,”<sup>86</sup> according to Bostrom. The transhumanist posthuman being, thus, is not apathetic. Instead, he is more human than he has ever been and is fully capable of interacting with situations and people that surround him.

### **3.3 Intention and endeavor**

How can we position the intention of creating *Pandora's DropBox* in this framework on transhuman philosophy? *Pandora's DropBox* takes seriously transhuman endeavors of technological enhancement. An important source of inspiration in all Heitmann's artistic work is how humans apply technologies in their lives. She recognizes that we, humans, invent and bring about the working of technologies, while technologies also move us and influence how we behave. In contrast to transhuman philosophy, Heitmann speaks from a rather dystopian position, clarifying in both the interviews with Spring Utrecht and The Creators Project that she is questioning to what extent these technological advancements support a healthy society. Heitmann thinks that increasingly more often we are comparing the capacities of humans with those of reliable machines that function flawlessly for 24 hours a day. According to Heitmann, this comparison causes us to expect similar idealistic performances from humans. Besides, Heitmann states that technologies help us to gain more authority over the world and to escape from the limitations of our lives. She gives a couple of examples: we can straighten our wrinkled skins by using Botox; social robots can take care of lonely elderly people; the manipulation of human DNA allows us to create 'perfect' babies; damaged intestines can easily be replaced with new ones, enabling us to live longer. Taking in mind this progression in the technical inventiveness of humans, Heitmann stresses that humans are taking over the place of God, saying:

“Now that God as the almighty authority was kicked off of his throne, it seems like the human being – with his technical inventiveness – took over the place of God.

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<sup>86</sup> Weiss, “Nature,” in *Post- and Transhumanism*, 191.

Not God in heaven, but our own technical abilities promise us our future welfare”<sup>87</sup> (my translation).

The examples brought up by Heitmann illustrate how there are humans who assume that biology is not a given and that they can take over biological evolution through technological enhancements. The previous remarks demonstrate that Heitmann isn't particularly optimistic about the outcomes of transhuman endeavors. She does not share the transhuman optimism on human enhancement to liberate the human being from its biological limitations. However, with *Pandora's DropBox*, Katja Heitmann intends to take seriously transhuman philosophy and the quest for total control. Heitmann acknowledges that we cannot be human without technologies and that this is a development that is already ongoing and irreversible. Accordingly, Heitmann realizes that the implementation of technologies in our lives shapes our thinking and what it means to be human and brings about humans who are partly becoming more mechanical. Yet, Heitmann doesn't think that this development is either good or bad, she rather thinks that we should be aware of how it impacts us and that it possibly also results in a society where people stop thinking autonomously and act like automatic machines in a perfect and predictable system.

Reflecting on *Pandora's DropBox*, we can see how the endeavor of the project as such is very much in accordance with transhumanist utopian perspectives. Human beings are understood as perfectly conditioned machines in this project. Understanding the human as a machine encompasses functioning flawless, effortless and automatically, regardless of time, strength or weaknesses and endurance. Finding ways to control consciousness and to cancel out emotions from the human body shaped the inquiry of understanding the human as a machine in the creation process of *Pandora's DropBox*. Just like transhumanists, Katja Heitmann attempted to create a perfect world in which there is no room for conflict, suffering, misery and where there is only room for harmony, balance, care and perfection. The perfectly conditioned machines in *Pandora's DropBox* move slowly, but with high awareness and calculation to every movement, controlling the blinking of their eyes, their walking pace and the positioning of their feet in accordance with an audible rhythm. Hence, Heitmann's choreographic ideas bear witness of transhuman aspirations, such as the quest for perfection or a kind of godliness, termination of all suffering and the desire to direct all actions to support this quest. In addition, the attempt to control the blinking of the eyes and to calculate every movement

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<sup>87</sup> Heitmann, "Interview met Katja Heitmann," *Spring Utrecht*.

of each body part demonstrates the conviction that human biological nature is malleable. Heitmann attempts to gain authorization over aspects of the biological body that happen involuntarily and instantaneous in response to unconscious biological stimuli or to gravity, but do not fit within the ideas of the choreographer of how machines should function. Heitmann therefor initially seems to understand the biological body in *Pandora's DropBox* as “an object for control and mastery rather than as an intrinsic part of the self,”<sup>88</sup> as N. Katherine Hayles elaborates on the particular mindset of possessing a body, as opposed to being a body. I argued before that the performers do not interpret their role but obey to the instruction of the choreography. Hence, their bodies are perceived as machinic, because they are slaves to instruction of informational code, in accordance with Klich's theory on manifestations of posthuman bodies in performance.

### 3.4 Problematic outcomes

Examining the outcomes of *Pandora's DropBox*, we can reflect through the performance as a dystopian perspective on transhuman ambitions. The performance shows that understanding the body as an object that can be possessed, altered and used as a tool that automatically carries out pre-defined directions comes at a price. As Heitmann said herself in the interview with Spring Utrecht, the search for entire control brought along new unanticipated problems. The bodily responses are the aesthetics of the manifestation of errors in the system of *Pandora's DropBox*, of that which was not foreseen, while initially the preprogrammed choreography was based around predictability, balance and the quest for entire control. Therefore, the performers appear as problematic transhumans who attempt to control their physical and mental body, but face problems in doing this, due to the design of precisely that body. In the light of transhuman philosophy, the errors illustrate what transhumanists wish to eliminate from human biology, because the bodily responses reveal how the body suffers from the actions it is demanded to perform. Transhumanists do not want to become subject to suffering and will do everything to banish this aspect from their lives. Given that audience members know that the moment is approaching when the bodies of the performers ultimately become unable to continue to execute the choreography, the performers are not free. Their biological design is problematic, because they must adjust their performance in accordance with their physical boundaries. However, what audience members take from the staging of problematic transhumans in *Pandora's DropBox* is not a discouraging idea

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<sup>88</sup> Hayles, *How We Became Posthuman*, 5.

that these humans are captured in their machinic, yet incomplete bodies. Instead, audience members are touched by the idea that the body has a life on its own. It is a relief to see how tears, sweat and muscles have their own velocity and energy, outside of the machinic system. I mentioned before what Heitmann learned from the emerging bodily responses, namely that there will always remain unforeseen matters, when humans think they control everything. Hence, I distill from this that Heitmann does not believe that a human being can ever reach a position in which he is entirely in control of his own biology and evolution.

Next, I mentioned in the introduction to this chapter that there is another way how we can understand the presented human beings in *Pandora's DropBox* as problematic transhumans. One of the consequences of the conditioning of the human beings is that the performers have become apathetic beings who do not interact with other humans, who cannot deviate from their usual operation and who are alienated from their emotions. In the interview with Spring Utrecht, Heitmann tells how the logics of the choreographic program of *Pandora's DropBox* suck the liveliness out of the stage:

“Pushed by the authority of logics, the performers in *Pandora's DropBox* are heading directly for their limits. They seem like they must live their life like a preprogrammed mission; as if life itself has become an algorithm; as if it passed away under the weight of efficiency, by which it is experienced as worthless. Precisely that, which makes life worth to be lived, has disappeared from the stage”<sup>89</sup> (my translation).

Audience members never make eye contact with any of the performers. Even when they think they had eye contact with one of the performers for a small moment, they didn't. The action of making eye contact is not programmed in the choreography and I explained before that the performers look slightly next to other people's eyes, never actually in their eyes. Furthermore, audience members see that the performers always show neutral facial expressions. The performers never laugh or look sad, they always have the same neutral expression. The apathetic state of being is emphasized by the song that accompanies the piece: *Rückert Lieder* by Gustav Mahler. Heitmann explains in her interview with The Creators Project that feelings of alienation from the world are addressed in the lyrics of the song. Heitmann argues that this is what is happening to the human beings in *Pandora's DropBox*, since they have become apathetic beings, robots in the end. When we reflect on

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<sup>89</sup> Heitmann, “Interview met Katja Heitmann,” *Spring Utrecht*.



the human beings in *Pandora's DropBox* as transhumans, we should consider them as problematic transhumans, dehumanized in their search for entire mental and physical control. The suggested problematic and apathetic characteristics of the ideal human being and the wish to eliminate emotions from the bodies do not correspond to what transhumanists wish for the future posthuman being to be. The wish to eliminate emotions indicates the belief that emotion is connected to 'being human' and that getting beyond that, allows us to go beyond the human and become machinic. In contrast, transhumanists believe that emotion should not be erased, but enhanced in order to liberate the human being from his biological limitations and reach the ultimate posthuman condition. Enhancing emotions is one of the targets of technological enhancement, in order to unlock all the potentials that human beings have. Hence, even though the endeavor of *Pandora's DropBox* is in accordance with transhumanist perspectives, the actual outcome of the performance is problematic when one evaluates the presented bodies as manifestations of transhuman bodies. The bodies do not conform with transhuman utopias, but they demonstrate a dystopian view on transhuman philosophy and technological enhancement, by representing human beings that have become apathetic.

### 3.5 'Unfinished' bodies

So far in this chapter, I mainly argued how the represented bodies in *Pandora's DropBox* demonstrate problematic aspects in the functioning of the transhuman biological body and an apathetic state of being that opposes transhuman philosophy. I finally wish to address here how we can perceive the problematic transhumans as 'unfinished' bodies, encouraging process rather than goal. In her theory on manifestations of posthuman bodies in multimedia performances, Klich refers to the body in a posthuman world as a work in movement, a body that is "in a constant process of 'unfinished'."<sup>90</sup> The posthuman body finds itself in a process of constantly redefining itself. In *Pandora's Dropbox*, we do not only see problematic human beings, but also human beings who are perfectly capable of learning completely new sets of movements, despite the errors. Even though the performers initially are completely unfamiliar with the movement vocabulary in the choreographic program, they nevertheless learn to perform it. Audience members witness the struggles of the bodies with all the sweat, tears and shaking muscles, but they also witness dedication to keep on performing the choreography by any means. Even

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<sup>90</sup> Klich, "The 'unfinished' subject," *International Journal of Performance Arts & Digital Media*, 165.

though it was a miracle in the creation process of *Pandora's DropBox*, to encounter the silent protest of muscles, sweat and tears in the bodies of the performers, the performers cannot be reduced to suffering slaves who serve the choreography. They are humans who are willing to do this and who won't just give up when they are being challenged. One of the first things Katja Heitmann said to me in our personal meeting, is that she doesn't believe that human beings simply give up. Instead, Heitmann believes that in the very essence of the human, there is always the will to continue. Heitmann shared the example of how our muscles can recover easily: even when your muscles are in pain because they are under tension for a long time, they will immediately recover when they relax and then you can continue the action. Heitmann and her team of performers discovered during the rehearsals that they never really met the moment when the performers really couldn't continue. Humans always continue and above all, they change, according to Heitmann. Take another example of the tearing eyes. Heitmann also told me that at a certain point, one of the performers executed the choreography so often, she got used to the performance and her eyes didn't even tear anymore. These two examples illustrate how the body is a work in movement, unfinished and constantly redefining itself, learning and changing.

### **3.6 Conclusion**

The research for *Pandora's DropBox* started with the question: "Can a human being become a perfectly conditioned machine? Since Heitmann formulated this sentence as a question, it also might not be possible. In the project *Pandora's DropBox*, Katja Heitmann took seriously transhuman philosophy as a proposition that is worth investigating. She examined what would happen to the human body when striving for entire mental and physical control, reconfiguring human biological nature. From here, I examined in this chapter how we could position the staging of 'problematic transhumans' in *Pandora's DropBox* in transhuman philosophical discourses. The proposition of reflecting through the presented human beings as problematic transhumans, is perhaps problematic in itself, since I mainly referred to a discouraging undertone in relation to transhuman philosophy. However, considering the problematic transhumans as 'unfinished' bodies might open more space to see their potentials as human beings. For the potential of the problematic functioning is not only that the system ultimately fails to operate, but also that it manages to continue operating. The apathetic state of being might also refer to a state of concentration to create space to learn and evolve. There is no doubt that *Pandora's DropBox* presents humans who are examining their inner machines. Unassailably, they

encounter their own being human and maybe even encounter the impossibility to ultimately become machinic. However, both transhumanists and the team members in the project of *Pandora's DropBox* neither strive for becoming anything different than being human. Both take seriously the attempt to become more mechanical by enhancing the human being with the use of technologies, although they all strive for one and the same thing: being human.

## **CONCLUSION**

In this research, I examined philosophical ideas about the posthuman that emerged in Katja Heitmann's *Pandora's DropBox*. I claimed in the introduction that the live performance of *Pandora's DropBox* presents a philosophical approach towards the exploration of human-machine relationships and that this approach is realized by means of choreography. Inspired by the technological world they inhabit, the presented human beings in *Pandora's DropBox* investigate what it does to a body when you calculate the timing of movements, just like how a machine runs by calculations. I investigated how the choreography of *Pandora's DropBox* supports an understanding of human beings as perfectly conditioned machines. These machines function automatically and flawlessly, they are inexhaustible and act efficiently and all their actions are computed. The 'efficient choreography' that was developed for this project is fully based on principles of logic, total physical and mental control and technical perfection. The choreography is a mean through which *Pandora's DropBox* promises to become a perfect world in which there is no room for conflicts, suffering and misery and only room for harmony, balance, care and perfection. How and where the performers move has been computed and directed to the very last detail in this choreography. By means of this choreography, we can perceive the human beings in *Pandora's DropBox* as computer machines who automatically execute the choreography as if it is a software program. The human beings as computer machines do not interpret their role, but automatically carry out their tasks. The posthumans in *Pandora's DropBox* are perceived as machinic bodies that act as slaves to the instruction of informational codes of the choreographic software program. This approach supports the suspicion of Katja Heitmann that human beings nowadays are losing their autonomy due to their engagement with technologies.

The functionality of the computer machines automatically executing the choreographic program resulted in the inevitable manifestation of unforeseen bodily responses: sweat, tears and shaking muscles. I reframed these unforeseen events as errors. This approach allowed me to evaluate on the occurrence of the errors in several ways. First, when we regard the posthuman beings in *Pandora's DropBox* as transhumans, we can perceive them as problematic transhumans. On the one hand, the errors in the functioning of the system reveal that the bodies face problems and that the performers are limited in their performance due to the design of their machinic body that has become unstable. On the other hand, the presented human beings in *Pandora's Dropbox* have become apathetic beings, which is an outcome that transhumanists do not strive for in their quest to liberate the human being from his biological limitations. However, we can evaluate on the occurrence of the errors also as the art of the system of *Pandora's DropBox*, highlighting its potentials instead of its problems. Heitmann learned from the

inevitable arising of the bodily responses that there are always unforeseen matters, when one assumes that he controls everything. Even though the choreography of *Pandora's DropBox* was entirely based on the quest for control, Heitmann included the occurrence of the bodily responses in the live performance. This means that she created room to reflect on the presented human beings in ways that have nothing to do anymore with predictability and control. As a result, the errors triggered such opposing associations in the minds of performance critics, like compassion, effort, duality, human, beauty, protest, the inevitable and meaning.

Furthermore, following the theory of aesthetics of the error by Tim Barker, it turned out that the choreography of *Pandora's DropBox* does not define the outcomes of the functionality of the system, but instead the conditions that direct the unfolding process of the system. We can conclude the philosophical idea about the posthuman that emerges here, one in which we cannot prescribe how this being unfolds, but merely can direct conditions where processes of development take place. Audience members in *Pandora's DropBox* witness the instability of the system and they know that there might be a point when the system fails to continue its operation, but no one knows where those limits are. Above this, the system operates, and the machines are learning to perform the program longer and more accurately. It became clear throughout this research that Heitmann questions to what extent our technological inventiveness supports a healthy society. However, she took seriously transhuman philosophy as she acknowledges that we cannot be human without technologies. The endeavor of the project *Pandora's DropBox* was very much in conformance with transhuman aspirations. But, Heitmann demonstrated that the posthuman body is an unfinished body. It is a work in progress of which we might assume how it develops and redefine the notion of the posthuman being today, but certainly never know how this posthuman being reconfigures itself tomorrow. Thinking of the bodies neither as machines, nor as human beings, not as predefined entities that interact with technologies but as unfinished instead reveals how these bodies, above all, continuously explore what defines their existence. *Pandora's DropBox* demonstrates that we must take into consideration the impact of our engagement with technologies. For it certainly changes our physicality and how we perceive ourselves.

I have chosen to analyze how the choreography supported an understanding of human beings as computer machines. What I haven't considered in my analysis are aspects of the scenography, such as the stage design and the costumes that deserve more attention. We could question how the scenography (hexagon shaped stage, field of artificial grass, song with auto-tuned voices) supports the staging of the perfect world in *Pandora's DropBox*, or examine how the plastic-coated costumes signify efficiency and

immediately lose their efficient status when they are being used by the performers who excessively sweat due to the costumes. Then, my research only concerned the performance *Pandora's DropBox*, but it might be interesting to examine the whole artistic oeuvre of Katja Heitmann and explore how her ideas about human engagement with technologies and accordingly how her artistic work improved. Also, Heitmann is currently doing a long-term project from 2018 to 2020, which is called *Motus Mori*<sup>91</sup>, in which Heitmann attempts to preserve movements that are in danger of extinction. The project clearly has its roots in the movement vocabulary that was developed for *Pandora's DropBox*, therefore we could explore how the projects are connected, how the researches supplement each other and how the new project continues where the research of *Pandora's DropBox* ended. Then, my choice of my method to analyze the engagement of the performers with the choreography from the perspective of computer machines that automatically execute software programs was useful to express the authority of the choreography in this performance. Also, it led me to the theory of aesthetics of the error that opened up space to explain how the choreography is not the only authority in this system and that the actual functionality of the machine executing the choreographic program is more relevant than the presumed outcomes of this functionality. However, the definition of the computer machine that I used in my analysis was rather simplistic. Instead, we could use a definition of computers as self-learning machines for further research. Lastly, I concluded that analyzing *Pandora's DropBox* through the perspective of transhumanist philosophy was slightly problematic, because the actual outcomes did not correspond to ideals in the philosophy and Katja Heitmann is clearly ambiguous about transhuman ambitions. In the volume I consulted, *Post- and Transhumanism: An Introduction*, transhumanist philosophy was compared to critical posthumanist philosophy, but I did not take into account this other philosophy in my analysis. We could analyze the manifestations of the posthuman beings in *Pandora's DropBox* from the perspective of critical posthumanist philosophy to examine how the posthuman beings represent 'the posthuman' as it is defined in critical posthumanism. More topics of research that I suggest are mind/body dualism, information/materiality dualism, relations to humanism, tragedy, empathy and the role of theatre in society.

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<sup>91</sup> "Motus Mori," Katja Heitmann, accessed on March 28, 2019, <http://www.katjaheitmann.com/work/motus-mori/>.

## **BIBLIOGRAPHY**



Barker, Tim. "Aesthetics of the Error: Media Art, the Machine, the Unforeseen, and the Errant." In *Error: Glitch, Noise, and Jam in New Media Cultures*, edited by Mark Nunes, 42-58. New York: The Continuum International Publishing Group, 2011.

Bleeker, Maaïke, ed. *Transmission in Motion: The Technologizing of Dance*. Oxon: Routledge, 2017.

Carbonell, Curtis D. "Brave New World." In *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, 109-118. Frankfurt am Main: Peter Lang GmbH, 2014.

DeLahunta, Scott. "Dance Becoming Data Part One: Software for Dancers." *Computational Culture: A Journal of Software Studies*, no. 6 (28 November 2017). <http://computationalculture.net/dance-becoming-data-part-one-software-for-dancers/>.

DeLahunta, Scott. "Dance Becoming Data Part Two: Conversation Between Anton Koch and Scott DeLahunta." *Computational Culture: A Journal of Software Studies*, no. 6 (28 November 2017). <http://computationalculture.net/dance-becoming-data-part-two-conversation-between-anton-koch-and-scott-delahunta/>.

DeLahunta, Scott. "Software for Dancers: Coding Forms." *Performance Research* 7, no. 2 (August 2014): 97-102. <https://doi.org/10.1080/13528165.2002.10871858>.

Dickel, Sascha and Andreas Frewer. "Life Extension: Eternal Debates on Immortality." In *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, 119-131. Frankfurt am Main: Peter Lang GmbH, 2014.

Dixon, Steve. *Digital Performance: A History of New Media in Theatre, Dance, Performance Art, and Installation*. Cambridge: The MIT Press, 2007.

"Ear on Arm." Stelarc. Accessed on September 1, 2018. <http://stelarc.org/?catID=20242>.

Ferrando, Francesca. "Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialism: Differences and Relations." *Existenz: An International Journal in Philosophy, Religion, Politics, and the Arts* 8, no. 2 (Fall 2013): 26-32. <https://existenz.us/volumes/Vol.8-2Ferrando.html>.

Ferrando, Francesca. "Towards A Posthumanist Methodology: A Statement." *Frame: Journal of Literary Studies* 25, no. 1 (May 2012): 9-18.  
<http://www.tijdschriftframe.nl/25-1-narrating-posthumanism/francesca-ferrando-towards-a-posthumanist-methodology-a-statement/>.

Franko, Mark. "Writing for the Body: Notation, Reconstruction, and Reinvention in Dance." *Common Knowledge* 17, no. 2 (Spring 2011): 321-334.  
<https://doi.org/10.1215/0961754X-1188004>.

Franssen, Trijsje. "Prometheus: Performer or Transformer?" In *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, 73-82. Frankfurt am Main: Peter Lang GmbH, 2014.

Giannachi, Gabriella. *Virtual Theatres: An Introduction*. London: Routledge, 2004.

Gingrich-Philbrook, Graig and Jake Simmons. "Reprogramming the Stage: A Heuristic for Posthuman Performance." *Text and Performance Quarterly* 35, no. 4 (October 2015): 323-344. <http://dx.doi.org/10.1080/10462937.2015.1075169>.

Hauskeller, Michael. "Utopia." In *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, 101-108. Frankfurt am Main: Peter Lang GmbH, 2014.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: The University of Chicago Press, 1999.

Heitmann, Katja (choreographer and artistic director of *Pandora's DropBox*). Interview with the author. Den Bosch, February 28, 2018.

Heitmann, Katja. "Interview met Katja Heitmann." *Spring Utrecht*, April 22, 2017.  
<https://www.springutrecht.nl/artikel/interview-met-katja-heitmann>.

Heitmann, Katja. "Katja Heitmann laat mensen bewegen alsof ze machines zijn." Interview by Anne Myrthe Korvinus. *Vice: The Creators Project*, May 17, 2017.

<https://creators.vice.com/nl/article/z4j8aa/katja-heitmann-laet-mensen-bewegen-alsof-ze-machines-zijn>.

“Het Modulaire Lichaam: Een online science fiction verhaal.” Next Nature. Accessed on September 1, 2018. <https://www.nextnature.net/nl/projecten/het-modulaire-lichaam/>.

“Info.” Katja Heitmann. Accessed on March 28, 2019.  
<http://www.katjaheitmann.com/info/>.

Klich, Rosemary. “The ‘unfinished’ subject: Pedagogy and performance in the company of copies, robots, mutants and cyborgs.” *International Journal of Performance Arts & Digital Media* 8, no. 2 (2012): 155-170. <https://doi.org/10.1386/padm.8.2.155.1>.

Laurel, Brenda Laurel. *Computers as Theatre*. 2<sup>nd</sup> ed. New Jersey: Pearson Education, Inc, 2014.

Linden, Mirjam van der. “Subtiel aandoenlijke robotmensen in Pandora’s Dropbox.” Review of *Pandora’s DropBox*, directed by Katja Heitmann. *De Volkskrant*, May 26, 2017. <https://www.volkskrant.nl/cultuur-media/subtiel-aandoenlijke-robotmensen-in-pandora-s-dropbox~b2c7b337/>.

Lubberding, Wendy. “De Tragiek van de Perfectie.” Review of *Pandora’s DropBox*, directed by Katja Heitmann. *Theaterkrant*, May 20, 2017. <https://www.theaterkrant.nl/recensie/pandoras-dropbox/katja-heitmann/>.

“Motus Mori.” Katja Heitmann. Accessed on March 28, 2019.  
<http://www.katjaheitmann.com/work/motus-mori/>.

Noll, A. Michael. “Choreography and Computers.” *Dance Magazine* 41, no. 1 (January 1968): 43-45. <http://noll.uscannenberg.org/Art%20Papers/Choreography.pdf>.

Nunes, Mark, ed. *Error: Glitch, Noise, and Jam in New Media Cultures*. New York: The Continuum International Publishing Group, 2011.

ORLAN. "Orlan's Art of Sex and Surgery." Interview by Stuart Jeffries. *The Guardian*, July 1, 2009. <https://www.theguardian.com/artanddesign/2009/jul/01/orlan-performance-artist-carnal-art>.

*Pandora's Dropbox*. Directed by Katja Heitmann. Spring Festival. Theater Kikker, Utrecht. May 22, 2017.

"Pandora's DropBox." Katja Heitmann. Accessed on July 23, 2018. <http://www.katjaheitmann.com/work/pandoras-dropbox/>.

Parker-Starbuck, Jennifer. *Cyborg Theatre: Corporeal/Technological Intersections in Multimedia Performance*. Hampshire: Palgrave Macmillan, 2011.

Philbeck, Thomas D. "Ontology." In *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, 173-183. Frankfurt am Main: Peter Lang GmbH, 2014.

Ranisch, Robert and Stefan Lorenz Sorgner, eds. *Post- and Transhumanism: An Introduction*. Frankfurt am Main: Peter Lang GmbH, 2014.

Ranisch, Robert and Stefan Lorenz Sorgner. "Introducing Post- and Transhumanism." In *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, 7-27. Frankfurt am Main: Peter Lang GmbH, 2014.

Sorgner, Stefan Lorenz. "Pedigrees." In *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, 29-47. Frankfurt am Main: Peter Lang GmbH, 2014.

Sutil Salazar, Nicolas. "Section Editorial: Human Movement as Critical Creativity: Basic Questions for Movement Computing." *Computational Culture: A Journal of Software Studies*, no. 6 (28 November 2019). <http://computationalculture.net/section-editorial-human-movement-as-critical-creativity-basic-questions-for-movement-computing/>.

*Tearing Machine workshop*. Facilitated by Katja Heitmann. Festival Why Not, De School, Amsterdam. October 28, 2017.

“The Modular Body.” The Modular Body. Accessed on August 31, 2018.

<http://www.themodularbody.com/>.

Ventura, Pablo and Daniel Bisig. “Algorithmic Reflections on Choreography.” *Human Technology* 12, no. 2 (November 2016): 252-288.

<http://dx.doi.org/10.17011/ht/urn.201611174656>.

Weiss, Martin G. “Nature.” In *Post- and Transhumanism: An Introduction*, edited by Robert Ranisch and Stefan Lorenz Sorgner, 185-200. Frankfurt am Main: Peter Lang GmbH, 2014.

Wiel, Francine van der. “Zo beklagenswaardig en eenzaam is volmaaktheid.” Review of *Pandora’s DropBox*, directed by Katja Heitmann. *NRC.nl*, May 23, 2017.

<https://www.nrc.nl/nieuws/2017/05/23/zo-beklagenswaardig-en-eenzaam-is-volmaaktheid-9936436-a1560111>.