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Cooking for perfection: Transhumanism and the mysteries of kitchen mastery

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How is such a mundane everyday activity as cooking redesigned into biohacking through the concept of transhumanism, and how are foodstuffs of different sorts framed in ways that allow them to become part of such a "biohack design"? This article will elaborate on these questions and thereby contribute to understandings of contemporary practices of biohacking through the lens of transhumanism. As we describe below, biohacking is a diverse and emergent movement that pulls people together in the joint enterprise of investigating the boundaries of what people can do on their own to learn more about their bodies. Intrinsic to this movement is the transhumanist idea that the human potential can develop beyond what we today acknowledge as bodily boundaries. Thus, transhumanist philosophies lend themselves well to deeper understandings of these phenomena. As Max More states in the introduction to his edited book "The Transhumanist Reader", human nature as we know it, is emergent and merely one point on an evolutionary pathway that we can learn to re-shape in ways that we deem desirable using new technologies and ideas.[1]

[1] More & Vita-More, 2013.

This article builds on a focused ethnographic engagement[2] with a biohacking event, the 2015 Biohacker Summit in Helsinki, Finland, aimed at using food and cooking techniques as a measure to enhance the human body and mind. The organisers of the event chose to frame biohacking as part of a transhumanist agenda by inviting the well known transhumanist thinker Max More as a keynote speaker on several occasions during the event, including an "Upgraded dinner" workshop where two of the authors (Martin Berg and Vaike Fors) participated. In order to produce intense data during this event, we used video cameras to observe the different activities and record interviews and dialogues with participants to create "short-term [ethnographic] research engagements"[3] that benefit from close and intentional focus on the often unspoken details of what people actually were doing. The method allowed us to actively take part in the event in a deliberate and interventional manner, and to theoretically engage with both the activities and the analysis of the produced research material (a third author, Jonnie Eriksson, participated in this latter step).

The upgraded dinner workshop was described by the organisers as a "future food lab taking food, preparation, cooking, and eating to the next level with the latest science and kitchen chemistry". [4] During this workshop various biohacking techniques were said to be used "to preserve quality and increase absorption of ingredients such as foraged plants, wild game, and seasonal local produce". [5] Along with roughly forty other participants, we engaged in the preparation of a 6-course dinner under the guidance of wild food chef Sami Tallberg and Biohacker's Handbook authors Jaakko Halmetoja and Teemu Arina.[6] During the fieldwork we specifically studied how the biohackers approached and engaged with ingredients and their preparation, and as a consequence how they chose to represent

[2] Wall, 2015.
[3] Pink & Morgan, 2013, p. 353.
[4] http://biohackersummit.com/q-a/ (accessed 2016-11-28)
[5] Ibid.
[6] http://biohackingbook.com (accessed 2016-11-28)

biohacking to an audience. The reconfiguration of the practice of cooking into a biohacking/transhumanist shape was conceptualised into a question of both mastery and mystery while adding three main components to the cooking practise through protocols and recipes: aesthetics, medicine and alchemy. This has led us to the conclusion that contemporary transhumanism is not always in its consequence about cybernetics, DIY science and technologically enhanced life (as it has been prescribed elsewhere, see more below), but can also be viewed as something that goes beyond technological revolutions and instead relates to a more ancient legacy.

In this article we investigate how this re-configuration takes place, what ingredients were added to construe the event, what happens when the everyday practice of cooking is redefined as "biohacking", and how it is explained by the organisers. It could be argued that biohacking is not by any clear and distinct definition connected to transhumanist thinking. However, this phenomenon is part of the movements and scientific trajectories that are directed towards investigating how the body can be transformed into something not yet known with the help of emergent technologies. In addition, biohackers and transhumanists are not fixed groups of people, advocating specific routes to bodily enhancement. For these reasons, we suggest that by analysing how actors within these loosely defined groups enact the ideas in new settings and configurations there is potential to understand the future of transhumanism and to detect contemporary directions. The article is organised as follows: In the next sections, biohacking practices and ideas will be discussed in relation to both contemporary thoughts on DIY science and historic accounts of transhumanist ideas. What follows is an ethnographic account of the upgraded dinner workshop with particular attention being paid to how transhumanist ideas and assumptions come to life in how ingredients are presented, prepared and described in relation to the human body. From the empirical section, we move on to an analysis of the ethnographic engagements where we focus on how a tension between mystery and mastery is played out during the workshop and how it relates to transhumanist ideas. In the

concluding section, the article is summarised and further discussed in relation to overarching questions of contemporary practices and consequences of transhumanism. But first we need to explain how the cooking was presented as a biohacking event in the first place.

Cooking with information

At the formal opening of the event "Biohacker Summit" in Helsinki, Mr. Teemu Arina was introduced as the curator of the event. Before his entrance to the stage, music was playing loudly, and the light show as well as the auditorium itself were designed in a way that created a sense of being invited into a futuristic high-tech showcase (see picture 1). Arina himself appeared on stage, making dance moves, while the audience cheered and applauded. During the introduction he explained the goal and purpose of the event as a dive into the biohacker world, and urged us to think about the human being through "system thinking" and biohacking as "the art and science of optimising the body and mind and performance". This includes an understanding of the body as a carrier of information that is "changing and affecting us, and our offspring as well", a way of thinking that could be concluded in a statement that Arina asked us to think about: "we are information". This conception implies that the body, as all information technology devices, also can be hacked to enhance performance. A similar thought surfaced at the final stage of the cooking workshop when Arina reflected upon what makes cooking upgraded, in front of the dinner guests. Relating the cooking event to molecular gastronomy that brings out flavours and new kinds of culinary experiences, Arina referred to the upgraded cooking event as the next phase for cooking since it takes into account what the food does to us as human beings and bodies. It is thus a way of hacking both the food and the body by carefully noticing how they interact and affect each other.

Picture 1. [loud music playing] "ladies and gentlemen, the curator of Biohacker Summit, please welcome to the stage, Mr Teemu Arina!" [Loud music playing again, Mr Arina jumps up on stage making dance moves]. Photo: Vaike Fors and Martin Berg.

The practice of cooking is thus conceptualised as an interplay between culinary experimentation and curious ingestion that brings about an experience through which a certain form of learning is assumed to take place. During the introduction, the upgraded dinner workshop was presented as part of a "learning circle" that lies at the core of biohacking practices. From the stage Arina let us know:

> Biohacking is all about the self experience [of] different types of systems and interventions into the biological machinery, or whatever you call it, and you might have a hypothesis, if I do that that will happen. But you don't know until you try. I might have a scientific understanding of it, in research papers they might ask different kind of experts, but really you don't know until you test.

However, if this testing will lead somewhere there is a need to combine it with the measurements of technologies like "sensors,

wearables and implants" that help you to "draw a map of yourself and then use that map to gain an even better self experience". From this point of view, food is a way of hacking into the "bodily machinery" on a biomolecular level, a route to upgrade yourself. Accordingly, the practice of cooking in the "upgraded dinner" workshop was reconfigured into a biohacking shape, which resembled a laboratory context where individuals can experiment with their bodies. At the very foundation of biohacking thought lies an assumption that biohacking practices can help moving beyond not only institutional constraints but also the boundaries of the body and what it could possibly become in terms of enhancement. Thus, taking biohacking into the kitchen may be looked upon as part of DIY movements in society where people, through the access to scientific equipment, engage in so called "garage biology" or "do-it-yourself biology."[7]

Biohacking: do-it-yourself science?

In DIY movements biohackers redefine science into do-it-yourself practices, and private homes and community spaces turn into sites for biological experimentation. In his study of "Biologigaragen" in Denmark, Morgan Meyer noticed a hacker space for people who are interested in doing science, and notes that this place for garage biology is an "interesting place where experimentation with science and technology as well as new forms of sociability seem to occur concurrently".[8] Through these practices, do-it-yourself biology is seen as both democratising science[9] and unleashing creativity.[10] Paralleling this movement with the punk movement, with its emphasis on non-profit, open source and open access, Meyer concludes:

> Do-it-yourself biology thus aims to constitute a distinct and political form of self by providing people with access, by enabling

[7] Delfanti, 2010.
[8] Meyer, 2013, p. 118.
[9] Wolinsky, 2009.
[10] Ledford, 2010.

> them to transform themselves into active producers of science, by making their bodies and ailments more knowable, and demonstrating that one *can* do it yourself.[11]

In addition, the DIY biology movement is said to be promising regarding "the establishment of a participatory innovation process beyond the current producer-consumer distinction"[12] and at the same time it can "foster new practices and transversal collaborations between professional scientists and amateurs".[13] The only concern this far has been about personal and national safety and issues about privacy. Not much, however, is said about DIY biology in relation to the biohacker community that is expressed by Teemu Arina and his crew at the BioHacker Summit. In their assessment of the "DIYBios" in Europe, Seyfried et. al. notes that it is a well established community of a dedicated core of enthusiasts that are here to stay despite the "hype generated in the media around 'biohackers' in the past years".[14] The main difference between "DIYbios" and the "biohacker hype", as Seyfried et. al. claims, is the resistance among the former to commercialise their products and skills in the way that is common in the biohacking community, often associated with test-beds for biotechnology start-ups.

Considering biohacking as part of the DIY movement makes you wonder if the biohacking kitchen is to be understood as a provocation toward more institutionalised healthcare systems or more of a commercialising activity? This alleged divide between rebels and profiteers within the DIY community is contested by for instance sociologist Alessandro Delfanti,[15] who argues that this political conceptualisation of DIYbios, as simply a rebellion against neoliberal ideologies, is a simplification that usually ends up in a dangerously easy commitment to open science as good per se. Instead, Delfanti suggests that the changes seen in the

[11] Meyer, 2013 p. 132.
[12] Seyfried et. al., 2014, p. 551.
[13] Landrain et. al., 2013, p. 115.
[14] Seyfried et. al., 2014, p. 551.
[15] Delfanti, 2013.

footsteps of the biohacker and DIYbios movements is a complex combination of life sciences and information technologies that brings more distinctions into play than simply freely sharing information, such as intense relations with the media, hedonism, creativity, passion, communitarian spirit, individualism, and entrepreneurial drive.[16] In this article we take Delfanti's argument seriously and approach the biohacker kitchen as part of what Delfanti sees as emerging in the wake of early DIY/biohacker movements, with an ambition to move beyond simplistic ideas of an either-or relation between these phenomena. Biohacking practices in this context seem to build on transhumanist ideas and values since the presented biohacking techniques and practices often aim at "unleashing" the human potential from its bodily constraints. In the next section we will elaborate on to what extent biohacking in the upgraded kitchen draws on core transhumanist ideas about the human potential and the possibilities to engage in nearly alchemist laboratory transformations of wild forage

Transhumanism: From do-it-yourself to do-yourself-over

As a prime example of how of proponents of transhumanism understand their own purposes, "The Transhumanist Declaration"[17] states the following:

> We envision the possibility of broadening human potential by overcoming aging, cognitive shortcomings, involuntary suffering, and our confinement to planet Earth. We believe that humanity's potential is still mostly unrealised. There are possible scenarios that lead to wonderful and exceedingly worthwhile enhanced

[16] Delfanti, 2010, p. 108.

[17] The declaration has been redrafted over the years. It was originally created in 1998 by 22 international authors, including prominent theorists such as Max More, Natasha Vita-More, Nick Bostrom and Anders Sandberg.

> human conditions. /…/ We favor morphological freedom – the right to modify and enhance one's body, cognition and emotions.[18]

The declaration primarily focuses on how technology provides tools for overcoming biological shortcomings, in the "development of means for the preservation of life and health," and argues for policy making which will respect individual rights to "use or not use techniques and technologies to extend life". In an alternate version, which currently functions as a manifesto for the World Transhumanist Organization and Humanity+, the Transhumanist Declaration sets the goal of "redesigning the human condition," liberating humanity from its biological limitations, including aging, and for individuals "to extend their mental and physical (including reproductive) capacities and to improve their control over their own lives."[19]

The issue of such links between technology and humanism is interesting to consider with respect to the transhumanist characteristics of the upgraded dinner workshop. Putting their ideals in historical context, adherents of transhumanism often stress their Enlightenment roots (a legacy which is, however, sometimes problematic and contradictory).[20] This implies that ideals of rationality, secularism, liberalism, optimism and progress, along with an affirmation of the benefits of science and technology, direct their striving for self-improvement and "morphological freedom," both as an individual right to pursue one's happiness, and as an evolutionary prospect for the human species to become posthuman. Not least the Marquis de Condorcet's optimistic notion of the endless perfectibility of mankind (published in 1795) can be cited in support of the relevance of such ideals to the quest for longevity or even

[18] More & Vita-More, 2013, pp. 54–55.
[19] "The Transhumanist Declaration": http://humanityplus.org/philosophy/transhumanist-declaration/ (accessed 2016-11-30)
[20] Hughes, 2010.

immortality of man; they are, as it were, what puts the humanism in transhumanism.[21]

Certainly there are significant aspects of these humanist ideals retained in the ideology of transhumanism. However, in the Age of Enlightenment, the idea of progress was primarily set in a political, social and moral context – as a matter of education or reform, not physical transformation. Only rarely, and then obliquely, did leading Enlightenment thinkers speculate on actual life-extension techniques. If nothing else, Enlightenment philosophers yet lacked the scientific support of Darwinism which would define later formulations of biological transhumanism in J.B.S. Haldane or Julian Huxley, or a sufficient degree of technological development which would make any bioengineering plausible. Ideas of prolongevity were indeed prevalent in the early modern era, and they did fit with Enlightenment ideals of progress and perfectibility; but they were rather placed against the background of earlier ruminations on longevity and immortality and seen in the medicine of popular, commercial culture, aided by the spread of printed books, and thus by no more advanced technology than the printing press.[22]

None of this negates the project of transhumanism, quite the contrary. Scientific and technological developments are not what properly define transhumanism, but more appropriately its goals, its visions and its ideological underpinnings. It is not by simply adding science and technology to a humanist ideology that transhumanism develops. Rather, transhumanism draws from a deeper well. Its key notions of physical and cognitive transformation (especially at the level of the individual), which are put into practice in the upgraded dinner workshop, are more readily recognisable in a tradition much-maligned by enlightened, modern minds: alchemical medicine, or iatrochemistry, pioneered by Jean de Roquetaillade (ca 1310–70) and famously championed by Paracelsus (1493–1541) and Jan Baptist van

[21] More, in More & Vita-More, 2013, pp. 4, 9–10. See also Bostrom, 2005, pp. 2–3.
[22] See also Yallop, 2016, pp. 10–18.

Helmont (1579–1644) parallel to the scientific revolution. The iatrochemists sought to extract the vital essence out of natural materials such as water, plants and minerals (the *aqua vitae*, the *lignum vitae*, the spagyric tincture or elixir, the vegetable stone etc.) in order to promote health, cure disease and ensure longevity.[23] By employing techniques of harnessing the secrets of nature, ordinary objects and even poisonous materials could be transformed into beneficial medicine with the prospect of wondrous results. This quest for material means of altering and improving man's physical condition, using knowledge of nature to perform something like miracles for the benefit of mankind – those "wonderful and exceedingly worthwhile human conditions" – is at the heart of transhumanism.

From the foregoing, we can conclude that our particular biohacking event – the upgraded dinner workshop – can be understood as part of the transhumanist trajectory as it is developing in relation to inherent dualities between nature/technology on the one hand, and on the other hand between ideas based in the Enlightenment's focus on rationality, progress and perfectibility and, as we suggest, more ancient notions of physical and cognitive transformation which can be traced back to an alchemical tradition. From this perspective, this event could also be seen as part of what Delfanti[24] understands as unfolding in the wake of earlier biohacker and DIY movements, inspired by, but also transgressing, more conventional ideas of transhumanism. In the empirical examples below, we will dig deeper into the practical consequences of such a rhetorical, philosophical and historical foundation. In the succeeding sections, we will analytically approach this event, how it is presented, organised and practised, thus focusing on finding out what ingredients is put together to form and construe transhumanist cooking.

[23] See Principe, 2013, pp. 69–71, 127–131; Hedesan, 2013; Sinclair, 2013.
[24] Delfanti, 2010.

Entering the transhumanist kitchen

The empirical descriptions in this section are selected through an analysis of the research material that two of us (Martin Berg and Vaike Fors) produced during our participation in the upgraded dinner workshop at the Biohacker Summit. Through our analysis we focused on the practice of presenting and organising the event to produce deeper understandings of the concepts and structuring ideas that framed the activities that were played out. This means that we were more concerned with the organisers' roles and activities than the participants' in this case and our examples are carefully picked to give a picture of how transhumanism is activated in the service of biohacking movements.

The aesthetics of the upgraded dinner

After some detours in the old meatpacking district in Helsinki, we arrived at the temporary "food lab" a late September afternoon in 2015. In the garden outside the venue we encountered a man practicing tai chi while wearing a chef's jacket. We soon realised that we were looking at Sami Tallberg, the chef that should guide us through the workshop. He seemed very focused, as if he was to preparing for something more profound than arranging for the upcoming workshop. We passed by him discreetly, entered the premises and sat down in a sofa to wait for the rest of the participants to arrive.

We had signed up as participants in an "Upgraded dinner workshop" that allegedly should "take food to the next level with the latest biohacking cooking techniques and kitchen chemistry". Under the guidance of wild food chef Sami Tallberg, biohacking guru Teemu Arina and biologist Jaakko Halmetoja, six teams should prepare six courses during five hours. While waiting for the workshop to start, we could not fail to notice that the whole event was framed by a clear aesthetic ambition that ran through all the way from chef Tallberg's tai chi-movements, the way the kitchen and ingredients were staged to how the event was documented and shared on social media by the organisers'

own crew of photographers and marketers. These aesthetic dimensions and the framing of the workshop are further illustrated by the following excerpts from our field notes:

> Upon entering the upgraded food lab at the Flavour Studio, we were greeted welcome and equipped with aprons. Plates of wild game and local forage, mushroom bitters, freshly picked nettles, polypody roots, wild reishi mushrooms, and rhodiola roses were neatly placed on the tables. The carefully prepared mise en place with sharp knives, stylishly stuck in cutting boards, clearly signalled the involvement of a professional chef and the setting reminded us of the Master chef television series.

The kitchen and the arrangement of ingredients and utensils, where the familiar was mixed with the unfamiliar and perhaps even exotic or advanced, clearly provided a setting in which the organisers could not only share their expertise but also to do so in a manner that signalled a move beyond the mundane everyday practice of cooking. The first encounter with the workshop is further described in the field notes:

> After a short introduction, we were guided through the upgraded menu and were told that some of the ingredients had been collected in the dark Finnish woods during the day and that one of the instructors had had the opportunity to practice yoga while collecting the mushrooms and herbs. We were supposed to prepare dishes and drinks such as ”Rhodiola birch sap with blueberries”, ”Raw wild salad with kelp and sea buckthorn”, ”Wild mushrooms with herbs and liquorice”, ”Pike with nettle” and ”Raw white criollo chocolate infused with wild mushrooms and herbs”.

The upgraded dinner and the kitchen setting were visually documented on Flickr, thus adding a digital layer to the workshop. In the Flickr feed (see picture 2) the ingredients were depicted on their own, thus allowing for their unique mystery to unfold with an aesthetic that focuses on details of the objects

rather than the people handling them.[25] The photos depicting herbs, vegetables and fish as ingredients often shade out or blur the people involved in a way that emphasises the importance of the object as such and its inherent qualities. Instead of highlighting the practice involving the ingredients, the herbs, roots, spices and leaves, that form the basis for an upgraded meal, are presented with great detail and intense colours, as if every little detail on the leaves and stems and skin were important and somehow saying something to us. Through such a framing of the ingredients as isolated objects, they appear to possess a particular magic and certain characteristics to be revealed once one knows how to master them.

Picture 2. Sami Tallberg demonstrating an ingredient. Photo: Biohacker Summit (reproduced with permission from Teemu Arina).

25 https://www.flickr.com/photos/130008641@N05/albums/72157659657456296 (accessed 2016-11-30)

The chef, the scientist, and the alchemist

As the event unfolded, every dish was carefully and systematically presented by the organisers Tallberg, Arina and Halmetoja. Some of the produce were reasonably well known whereas others, mostly the ones being freshly picked in the Finnish forests, felt rather exotic. The presentation of the ingredients often went beyond what was assumed to be known, and the biochemical characteristics of various vegetables, roots, herbs and berries were explained. Some vegetables were said to bind certain toxins, others had particular hormonal effects and so forth. The three organisers had different roles in presenting the dishes that were supposed to be prepared at each table. While Tallberg focused on the preparation techniques and the visual composition of the meal, Halmetoja was more concerned with the medicinal qualities of the meals. In addition to these presentations and interpretations of the dish composition, Arina engaged in what could best be understood as an alchemist divination through which the seemingly unknown relationships between ingredients and their biomolecular qualities were revealed and interpreted. However, the roles were not statically distributed between the three organisers; the different perspectives on the food moved in and out through the conversations between them, and between them and the participants. The example below shows the interplay between these three roles and their different perspectives, and it is taken from a moment when the organisers were describing how to prepare one of the salads on the menu. Tallberg reached for one of the vegetables on the table and explained what it was to the audience:

> So what we have here is curly kale, so it's gonna… we're gonna take it of the stems, and if you prefer you can crush a little bit by hand… to soften up the texture a little bit… we put it there [he puts the kale back in the plastic box]… then we have we have Finnish apples [he takes one of the yellow red apples from the cutting board, and holds it in his hand]… just give them a little wash, and [he grabs the slicer] thinly slice them and they will go

> into the salad as well, we don't need to do anything for them except take this stem off…

When explaining that the apples could go into the salad without removing the seeds, Arina was quick to add that "a little bit of cyanide is good for everyone" and continued to explain that the pike that we were preparing is on top of the food chain:

> And because they eat other fish, they will accumulate things like heavy metals and so on, so that's why we have kale and other seaweeds here… to bind some of those toxins, so that they don't get absorbed. Anyway, eeh, you shouldn't eat this type of fish for… too often… that should already take care of the problem, but if you wanna, you know, bind those things before they get absorbed, here's one trick to have a little starter to go with, a little bit of seaweed.

Picture 3. Mise en place. Photo: Vaike Fors and Martin Berg.

After this presentation Arina handed over the microphone to Halmetoja with the question "okey, what about the nutritional qualities… we're having it raw, and what's the benefit of having kale raw?" He continued explaining how the ingredients of the dish can possibly interact with the human body:

> Well, all the cruciferous vegetables, they have certain compounds, like sulphuric compounds, that get broken down when you cook them, and I think that's good in many ways, but sometimes it's
>
> good also to eat them raw to get, I would say, hormonal effects, especially for women. There are compounds that are really good getting rid of these bad forms of oestrogen for example, for men they're good for cancer prevention and stuff like that. But the other thing is that, I think seaweeds are excellent mineral sources and especially trace minerals…

The idea that natural ingredients possess certain qualities and a possibility to instantly change bodily processes became visible at several occasions during the workshop. Most notably at two occasions when the organisers engaged in practices that had elements of alchemist thought.

Picture 4. One of the organisers demonstrates a sachet of instant cordyceps. Photo: Vaike Fors and Martin Berg.

During the event, we noticed that Halmetoja was standing by himself and pouring something down his throat. We quickly moved towards him and noticed he was holding a sachet of ”Instant cordyceps”. We asked what he was ”trying” and he explained that it was ”a medicinal mushroom that is very good for your lungs”. He said that he had felt ”some type of mould or something in the air” and said that it had helped him before. We started to talk about these mushrooms and we were told that they are ”very good for your meridians and lungs and stuff like that” and he explained this further with references to both Chinese and Western medicine. Our conversation moved on to the event as such and we asked what it means to upgrade a dinner like this, what we need to do and if we need certain kinds of knowledge and techniques. He suddenly started to laugh and then said, ”most of the people think I need this or that, not that I can or I’m able to have, I think it is more kind of a point of gratitude that you understand how abundant the world around you is”. He explained this further and often returned to the notion of experience. He suggested that we all have an opportunity to optimise our experiences, and ourselves and explained that he had experienced an "overwhelming feeling of wellbeing over the years”. Furthermore, he suggested that “through these kinds of practices we are moving towards better feelings, more fun, more complex flavours and experiences, it is simply a question of changing what we value and to see what the world has to offer”.

The idea of unleashing the hidden powers of the nature in a nearly alchemist manner was evident not only in this example but also at another occasion during the event. By the end of the workshop, we encountered Arina standing by a table on which various roots, mushrooms and herbs were placed. In his hand he held a small bottle and with a movement that seemed to involve his whole body, as if he wanted everyone to notice what was going on, he used a pipette to drop some homemade Rhodiola extract on his tongue. When the drops hit their target his eyes opened up as if he were surprised and he seemed both content and satisfied by the fluids that had just entered his body. The way he used the pipette and the satisfactory facial expression the

drops caused, could be read as if he was more or less surprised or even amazed by his own alchemist skills.

The magic craft of biohacking cooking

When the actual cooking proceeded, we were organised into groups around different tables with all the ingredients in front of us, and the only guidance we had was the presentations held earlier (see above). The participants were everything from guests with VIP-tickets to the Biohacker Summit, to people who had bought the tickets because of their interest in healthy food. By moving through the different groups we soon realised that in every group there were at least two or more people with a lot of experience from cooking and with a great interest in and knowledge of the different ingredients on the tables (even the more obscure ones). In spite of this collective competence, everything took a lot of time, the whole cooking session lasted around six hours. This was due to the fact that even the simplest cooking manoeuvre around the tables was regarded by the participants as so complex and complicated that it needed to be supervised by one of the organisers or their helpers. The following example comes from one table where the group was going to prepare a salad with chanterelles and green leaves:

> After a short presentation round we looked at the ingredients that we were going to put together for the chanterelle salad. There was a box of chanterelles and a box of green salad leaves, and some herbs and bottles with different powders. Nobody moved for a long time and then I asked if we should get started with the chanterelles. There were a couple of comments around chanterelles and mushrooms in general, it seemed like the most of us had experiences of hunting, cooking and eating mushrooms. In spite of that everybody seem to be reluctant to start preparing the mushrooms as if there was something special about these ones. I asked: Should we start with cleaning them? A man who stood beside me shrugged his shoulders and asked: Are we meant to do that? Wasn't there something in the instructions about the dangers with spoiling the powers of the mushrooms [the last words he said

> with a specific and ironic voice, indicating that this was something almost supernatural]? Nobody said anything and then one woman ran off and came back with the chef to sort this question out. And yes, we were supposed to clean the mushrooms with one of those
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> small mushroom brushes you can get at the grocery, nothing more, nothing less. The next step was to cut them in smaller pieces. We went through the same procedure, nobody dared to simply do this in the way they were used to, instead we had to wait until one of the chefs arrived to give his blessing.

There seems to be a rather complex relationship between expertise and exploration in the framing of the cooking workshop. On the one hand, the organisers engage in certain kinds of explanatory practices through which they uncover seemingly hidden affordances of the ingredients on the tables and explain the apparent mysteries of them being combined in different ways. On the other hand, the participants were encouraged to experiment and try out new combinations, for instance by adding unexpected ingredients to dishes. However, these unexpected ingredients were framed in a way that made it appear to be part of both tradition and myth, a mix that gave the adding of these ingredients into the food a feeling of joining both a traditional and cultural practice as well as a mystic and mythic one. This tension between mystery and mastery is apparent in the words of one the organisers who explained that upgraded cooking and living is partly about exploring and experiencing and partly about unveiling and understanding qualities of food that are often forgotten or unknown in contemporary society.

These are all examples of practices through which design processes take place, through which certain futures are desired and sometimes created. The biohackers use various ingredients and cooking techniques as a means to alter the human body at a molecular level. As we have seen, these future-making design practices are played out on different levels, both as a particular aesthetics with mysterious dimensions being added to ingredients, and as the interplay between professional roles through which the same mysterious dimensions are unpacked and interpreted. In

the examples above, cooking becomes a metaphor for control and enhancement while being used as a means to intervene in bodily biological processes. By claiming control over bodily processes this way, the seemingly automatic dimensions of metabolism are thought of as partly comprehensible and partly controllable. Through the use of esoteric and hitherto forgotten "knowledge" about how ingredients work together and what nature provides, it is assumed that the body can not only be altered but also enhanced.

Between mastery and mystery: The noble art of biohacking

Transhumanist discourse is usually technological, particularly cybernetic, even at the upgraded cooking event. It is by virtue of being construed as "information" that bodies and minds can be controlled, hacked, programmed, and upgraded. Food therefore should be construed as a code which enables such hacking and programming. However, this does not seem adequate to fully explain the experience of the transhumanist kitchen. The futuristic setting of the event is indeed a mise en scène of that technological discourse; but the actual practice of "hacking" the body with what can be made of fruits, berries, vegetables, herbs and mushrooms from the forest, displayed in the culinary mise en place, suggests a more lo-tech, down-to-earth approach to a biochemical understanding of physical and psychical transformation.

Of course, foodstuffs have long been tools for modifying the constitution, functions, affections and perceptions of the body, stimulating improvements in metabolism, sexual vigour, sensorial experience and so on. What is particularly alchemical in this transhumanist cooking is its reliance on the transmutation of natural substances for the physical, spiritual and moral transformation of a person. There seems to be an almost mystical urge to uncover hidden properties, to explore effects of mixing or otherwise manipulating ingredients, for the purpose of creating

new capabilities, affects, sensations and ways of being, for the individual as well as for mankind.

The mastery/mystery duality at work in the transhumanist kitchen gives ample evidence of this. While the biohacker, sometimes with great show, masters the natural resources as well as his/her own body, there remains an enigmatic, almost magical quality to the performance of alteration and self-transformation in that very mastering of matter. This sense of mastering nature does not inhere in the tendency to dominate, domesticate, control and exploit the natural world, which is often criticised as the anthropocentrism of modern humanism. This is one respect in which transhumanism does not accord with Enlightenment rationalism and technophilia. On the contrary, the natural produce is put into focus, its natural qualities, even as "raw food," are emphasised, and the aspect of "mastering" resides in an initiated knowledge of their chemical properties and the outcome of their combination and preparation. It is evident that the organisers are the masters of "the noble art" of such a transformation and we participants are mere apprentices in learning to extract the natural magic of mushrooms, nettles, kale, kelp etc.

This alchemical attitude bridges the gap between nature and technology usually associated with transhumanism and biohacking. Far from a prospect of deep-frozen corpses and uploaded minds, this transhumanist kitchen is a laboratory for turning the secrets of nature into a life-affirming, savoury feast. The futuristic aesthetics and rhetorics of the biohacking event are thereby balanced by an appeal to age-old desires and ideas of their effectuation, the lofty ideals of transhumanism grounded in the earthiness of vegetables and minerals. Indeed, prominent transhumanists are clearly aware that they are situated at an end-point in a long line of cultural milestones marking the path towards longevity, through Gilgamesh, the Daoists, the alchemists and onwards.[26] In spite of its futuristic imaginings,

[26] Bostrom, 2005, p. 1.

transhumanism is somehow legitimised by its most ancient legacy – which in itself is a rather alchemical notion.

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