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## Function as the Objective Form.

An essay on making things transparent.

“We don’t escape by exposing ourselves to subversion, we only experience our uneasiness at being deprived of what we want. We should be wary of this, aware at least that there’s a covert affirmation of the status quo in volunteering ourselves to discomfort.”<sup>1</sup>

In writing an essay one should be aware of the implicit danger of the form. This danger is dual in its capacity, as perhaps many dangers are, in that it encompasses both the writer and the world in which the writer reside. Characterizing of the essay and its form is its lack of feeling for authority, and a rather intrinsic suspicion for claims made by allegedly accepted theoretical terminologies and practices.<sup>2</sup> As a consequence of this predetermined danger in the form, the writer then has to willingly or unwillingly relinquish herself/himself from the idea that the act of writing is moored to a serene and comfortable place where already made-up words and meanings rests assured. Harboring these possibly discomforting thoughts about words and meanings, the act of writing then can end up in having some unpleasantness directed towards the world(s) that engage in a conforming of words and meanings. Instead of being mediators of praise, both the writer and the written text end up in a space of unruly practice, what I suppose often is called “Critique”.

I don’t know if it is possible to be that dangerous. But I believe there is a kind of widespread delight in thoughts of suspiciousness, not perhaps because it gives the best answers, but because it enables the suspicious-minded some peace of mind. This peace is often foregrounded by a devoted adherence to the “Meta level”. Since the basis for any meta-level suspiciousness lies in the belief of some sort of adequacy and an accuracy in (matters of) understanding, I think it is time to proclaim my hesitations.

Instead of arguing in line with the belief that there can be actual accuracy and stringency in both *understanding* -that there is a “best way” of knowing- and in *doing* something with what is understood, I would like to argue for the inevitability of the obscure and the opaque. This may in itself be a paradox, emphasizing the inconceivable, even so I believe it leaves more remainder than what giving straight

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<sup>1</sup> Diski (2002) p. 2-3

<sup>2</sup> Quote Engdahl (2003) in Börrefors (2007) p. 24. Essay also implies *trying*, which I find is quite a relief

answers to questions does.<sup>3</sup> Most likely the question of giving clear answers depends on the type of (non/trans/post)discipline you feel yourself answering to. Therefore I draw some security from the form of the essay, in its devotion to trying, and engage with and within a feminist technoscience debate much initiated and informed by Donna Haraway. Some of the essays comprised in Haraway's 1991 anthology, especially her writings on the by now canonical figure of the cyborg and of technoscience, will be the place from where I draw my arguments, and where my thoughts linger. This does not mean that I disregard her later writings, merely that I find these initiating texts on what Haraway terms "situated knowledges" very intriguing. These texts will allow me to discuss how questions of societal change and its linkage with technology and science are being formulated within some feminist (technoscience) debates. Here I will mainly focus on some of the theoretical approaches that presume an interlinking between a technoscience epistemology and a contemporary "west" which increasingly addresses itself as being in a modus of "Mode 2", where science *in* and *for* society is stressed.<sup>4</sup> My interpretation of the ways of looking at these large entities called science and society which harbour in these texts, will form the basis of my argumentation on the methodology of and ambitions for transparency, and on the underlying irreducibility of the opaque. In this essay there will be something of a wandering toward the question of context, and its seemingly both fleeing and absolute character when it comes to matters of being and of seeing (particularly in terms of scientific objectivity).

Looking towards questions of context is also my way of conversing with what I find is becoming increasingly difficult to understand, namely the linkages between and the consequences of what for instance Donna Haraway calls "sign, context and time".<sup>5</sup> The difficulty and the uneasiness for me lay in how these linkages, in some theorizing, seem to be bound to some causal tendencies towards context as determinative for being and thinking, even though the words are spoken in a more postmodern tone of voice. Although the more postmodern tone often find itself clinging to no grand truth or meta narrative, presumably being beyond modern, there is in part at least a quest for another or better, yet perhaps smaller, truth.<sup>6</sup> The persuasive potential of any truth claim are not unproblematic when it comes to questions of looking either at the world, or at representations of it. To suggest the inevitability of the opaque is a way for me to try to get out of what could be thought of

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<sup>3</sup> I draw this conclusion from reading Baudrillard, and his devotion to that which cannot clearly be spoken. This I also take as a harsh criticism of positivist ideology, in its belief that there can be clear, transparent and unquestionable answers and truth in this world. See further Baudrillard (2001) or Grace (2000) chapter 1 for discussion on Baudrillard's "symbolic exchange"

<sup>4</sup> Some points of the "Mode 2" prospect will be discussed under chapter "Function" below

<sup>5</sup> Haraway (1991) p. 208. I will discuss some of the possible implications of this in the chapter "Ornament"

<sup>6</sup> If one should believe Jane Flax and her article from 1992, it does not matter what modernity (pre/post/late) or field of theoretization you feel that you are in, the hope for some kind of (better) (meta) truth is still present. See Flax (1992) p. 445-463, especially p. 456ff, where Flax questions the "Enlightenment" belief within some feminist theoretization. One might also consider if placing oneself in the position of *understanding and/or deconstructing discourse* is not also a quest for grand(er) explanations of the world. And so Foucault is not a man with small requests

as at least a (art)historically strained relation between form, content and understanding, and that I find a parallel to in the discussion of “sign, context and time”.<sup>7</sup> Taken together, this text is a way for me to feel associated with Jenny Diski’s words, that there is a risk in thinking that one form only enables one type of content (the same), and that a change of form immediately means a change of content.

## Ornament

That ornament was considered a crime against a cultivated state of being was one modernistic thought much enforced by the Austrian architect Adolf Loos. In the year 1908 he formulated that “the evolution of culture is synonymous with the removal of ornamentation from objects of everyday use.”<sup>8</sup> A truly cultivated society moves in the direction towards *pure function* and away from ornamentation. What I find Loos implies when enacting “pure function” is the linkage with the notion of *transparency*. Such a pairing of transparency on the one hand and function on the other hand acts as an emptying of possible diversions and deviations of understanding content. What is left is instead a single dominating direction of thought, because as Loos suggests in his text, when form follows function there should be nothing that makes one unclear or uncertain about neither form nor function.<sup>9</sup> Thus, having no ornament makes an object or form directly clear to its user, in Loosian lines the form’s intention to work as a specific form with specific function becomes immediately recognized by the eye. There can be no misunderstandings here, since there is no residue in neither form nor function, and therefore nothing to keep one’s thoughts lingering on. In this way it is possible to say that the eye *sees through* the object or form, it has become mere tool.<sup>10</sup>

One could say like ornament like science. The more positivist moves towards getting rid of the *form of science* in order for it to function or work as intended, with a scientific content claiming objectivity, can also be seen as a move towards transparency. With this I mean that in order for science to function as truth the evidence of its existence in providing that truth must be treated as empty space or as an empty eye. Science as a form, as a way of doing and as a place from where

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<sup>7</sup> As an example of this strain the Swedish sociologist Johan Asplund writes about how the art historian’s misconstruing in respect to her/his interrelating and referencing between works of art, has deep implications on the comprehension of artistic work and artists. See further in chapter “Hur sjuk var Hill?”, p. 15-39 in Asplund (2006)

<sup>8</sup> Loos (1998, 1929), quote p. 167. At this time in Austria and in many parts of Europe, the art nouveau/jugend style flourished. With its highly flowery and flora inspired ornamentation visible both in architecture and interior decorating, along with a contemporary eclecticism bringing together the old style periods, the world must have seemed overflowing with ornamentation. Art nouveau is said to be present from circa 1890 up until 1910 in Europe, and from 1890 to 1920 in Sweden, Svedberg (2000) p. 27-33

<sup>9</sup> The “form follows function” paradigm continues in the Bauhaus movement, see Svedberg (2000) p. 75ff

<sup>10</sup> In Cornell (1993) there is a discussion on the usage of objects and its latent (in)visibility. Cornell discuss the different approaches formulated by Heidegger’s and Husserl’s, which I translate to “for the hand” and “by the hand”, p. 53-56

someone (the scientist) provides what is entrusted as truth, must be emptied of meaning, must be seen as irrelevant for its outcome: truth. By emptying the (scientist's) eye of unruly content, via a solution of accounted for objectivity criteria, transparency in understanding appears.<sup>11</sup> And through an emptying of the space between the eye and the object of knowledge, *transparency appears as an act of disappearance*.<sup>12</sup> The act of disappearance that I am referring to here has to do with how scientific theory and method works to make so called scientific results seem evidently real and present and, most importantly, somehow independent of theory and method. The results seem to be simply out there, made to appear through a disappearance. This emptiness, in the disappearance of context pertains not only to the researcher's eye and mind; I would argue that the clearing of context also relates to the beholder's understanding of scientific form and its content. In the pretence of being objective and true, in order to function as the form intends, scientific criteria must in some sense be thought of in the same way, and its result or its content must be considered understandable only in one certain way. Therefore there can be no disturbance, something that could make one's thought linger were it should not, either in transmitting or in the act of receiving and understanding the form and content of science. Clearing doubt and context to approach unambiguous understanding could be thought of as a very modernist code of conduct, creating large scale forms with a single content.<sup>13</sup> Even if my sketchy portraying of positivist epistemology touch on the malicious, I think it may still serve as a background to what I want to consider in this essay. And to some extent I also find that this type of portraying has resemblance to how a more postmodern epistemology needs to disjoin from positivist epistemology and its firm hold on matters of truth and objectivity. Even so, there are still these *absolute words* and their meanings and consequences left to deal with, even when looking at the world in different ways than what much scientific tradition entails. These words seem inseparable from the act of research and its response and reciprocating. And as a consequence it seems that no matter where one turns in the realm of scientific form, one is still enclosed in questions of and pretensions to truth. Therefore I think perhaps that the tradition and foundation of scientific form is crucial to any discussion where one wishes to be within and feel associated to the realm of science or research, whether or not the affiliation is directed towards a more modernist or a more postmodernist view on the world.

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<sup>11</sup> This is my understanding of how it is made possible, through the use of scientific procedure and criteria, to lose oneself (as a being and as being a researcher). This losing of oneself pertains to one's own involvement in (re)making "scientific objectivity". Richard Rorty (1981) pose questions on scientific method, while Baudrillard (1988) p. 97-101 question the intentions of theory, in its endeavors to work as a reflection of things present, as a mere *re-presentation* of the world

<sup>12</sup> Virilio (1989, 1996) does not particularly discuss scientific method as a disappearance of oneself and context in order to obtain objectivity, but I do think his arguments on disappearance are interesting here

<sup>13</sup> Eriksson & Göthlund (2004) p. 20-21 writes about the "pictorial turn", and its parallel in the "linguistic turn" where the meta narratives of modernism are put into question. Storey (2001) makes the downfall of meta narratives one of his vital points for understanding and addressing contemporary culture

Lately, or during the past decades there has been a societal pull towards the understanding that all matters can't be forced into the form of modernism or the form of positivistic science. In its stead or as a parallel movement to it, a more postmodern view engages in the need for a different form in order to make different outcomes of the world possible and visible. And this new form of *visibility* is spoken in a less coherent language than what is often referred to as the meta narratives of modernity sprung from all Enlightenment action.<sup>14</sup> Here is also where the inseparability between power and knowledge is further stressed within the more socially constructivist approach to both the form and content of scientific endeavours. The awareness of the positivistic claims of science made its industrious adherents and their texts submitted to the act of deconstruction and discourse analysis. This type of story I find is fairly often told as a sort of reference to or break point from a modernist history, in order to then locate oneself as heading towards postmodernism and the linguistic turn.<sup>15</sup> It is so to say the background to the postmodern emphasis on content and meaning as intrinsically dependent on the beholder. And as consequence there seems to be acts that can't be quite converted even by more postmodernist or poststructuralist approaches or standards. What I am thinking of is the eye, and in it *the act of looking*. In taking this approach, the act of looking, the need to look in order to see (i.e. to understand) seems to have a tendency to endure longer than what has been revealed to the eye. In taking on a rigid constructivist approach, where only the beholder creates content, the things of the world that reveals itself to the eye are more fleeting than the eye itself, since the eye ultimately comes to decide things being as things. The eye then to some extent is the more constant of the two, because it holds the answers to the world around it, and in it decides the true intent of the world.<sup>16</sup>

In her writing the much canonical feminist theorist Donna Haraway stresses the endurance of the positivist eye of the past and its constant prevalence in the present. It is an eye of a "non body" that by means of being unburdened by a body can arrive at doing what Haraway calls the "god-trick". The trick is to see "everything from nowhere" and as a consequence claim true authority.<sup>17</sup> Yet, instead of disregarding the eye as inconceivable in relation to feminist objectives Haraway intends a relocating when she reclaims vision under the premise that this time, the eye is *located*. The desolate eye of science thus becomes embodied, placed back in its body from where it had never actually stopped being located in space and time, since

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<sup>14</sup> Enquist (2009) p. 166; "Det var som om en situation uppstått där människor överallt, till synes av en obetvinglig inre logik, sa samma saker, fast på olika sätt. Situationen hade nu etablerat sig. Då bestämde den också känslorna." The quote relates to a paragraph where Enquist writes about how the feminist and other social movements in the 70'ies held visibility-making close to heart. Foremost, with a new type of visibility there is also a new type of *invisibility*

<sup>15</sup> The arguments I try here are very much influenced by Donna Haraway's writing, see Haraway (1991), Haraway (1999) and Haraway (2004). On the linguistic turn, see note 13 p. 4

<sup>16</sup> The way I understand it Cornell's writing in Cornell (1993) circles around these questions

<sup>17</sup> Haraway (1991), both quotes p.189. The section I am referring to here is "The Persistence of Vision", p. 188-196

space and time was the reason for the eye's living and acting and breathing. In formulating this break away from positivist tradition she writes: "I would like a doctrine of embodied objectivity that accommodates paradoxical and critical feminist science projects: feminist objectivity means quite simply *situated knowledges*".<sup>18</sup> Hence, the surroundings or the context from where body and vision can be claimed does not only influence *how* it is possible to see and understand, to some extent it also makes certain things visible while leaving others aside and invisible. And as such, relocating the objectivist eye into having a body, into being somewhere that is located in space and time, also to some extent turns the body as being into a prerequisite for using vision. With this I do not mean that Haraway regards a body as a medium through which anything can be said, on the contrary, Haraway stresses our accountability for how and what we see.<sup>19</sup> Yet I think that the location of an eye, a body, and in it a subject with dreams, hopes and memories remains a deeply tricky thing to understand, for oneself perhaps as much as for anyone else. I believe this touch upon the ephemeral in seeing and in knowing, because what becomes visible to me might not be consistent, convenient or tangible, let alone traceable to some definite reference. So even though the eye is located on and in me, the eyes are mine and my responsibility alone, to what extent is my vision actually considered mine in light of a more constructivist approach? And to what extent can one say that what one sees and understands are not merely someone else's vision placed over one's own?

My hesitation here has to do with what I believe "situatedness knowledges" might imply. As I understand it Haraway uses this term as a way to formulate a kind of accountability pragmatism. Yet I think that there is a difference between *knowledge about one's situatedness* and *knowledge through situatedness*, and in I believe that the former has a tendency to be relocated as a transparency act, because it rests in an act to make oneself as visible as possible, particularly I believe through a kind of labelling of oneself. Before I go any further let me go back for a moment to what Haraway's situatedness might imply. The body with eyes is always situated and found doing and thinking things in a particular space located in time, and has within the framework of "situated knowledges" therefore little chance and also perhaps little interest in saying things in a dislocated manner. Referring to situatedness or to situated practice thus involves an intention to move away from the former unreflexivity modus of positivist tradition. As I understand Haraway the crucial part here is that knowledge is always enacted through situatedness. Yet, can the focus on situatedness run the risk of essentializing the situated? Because how are we, or I, or Haraway for that matter, to know where something as deeply intertwined with the self as time and space, or context ends, and where something else, something other than context begins? With essentializing the subject I mean that I feel there might be a tendency to overplay situatedness as something, paradoxically enough, quite static. It is as if situatedness in this version implied a hunger for reduction of time and space

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<sup>18</sup> Haraway (1991) p. 188

<sup>19</sup> Haraway (1991) p. 195

and thought, saying that “this here and that other thing here”, that are consciously known by me (the situated) are the things that in this time and place makes me situated. Taken to the extreme perhaps, I find that this version which I above call *knowledge about ones situatedness* end up in a conscious decision to take up certain aspects of self that might be found equivalent to the term situatedness. And through this version of situated knowledges visibility of self ends up in an act of transparency. I have something of a quote I come back to sometimes when I think about this type of understanding of situated practices. It is a line or phrase used to put people in a city or a place, to formally contextualize them into say “the Gothenburg based author often works.....” and the quote ends. I find such a phrase quite common when switching city and/or profession, and to me the quote issues a form with a seemingly understandable content. The author lives in Gothenburg, she or he might go to that coffeehouse or that mall to shop groceries, it is a clear statement of some kind, but what impact has this in her or his thoughts on life, or in the act of writing? It is supposed to make something visible, supposedly the same as saying white, female, middleclass etc. But in stating this in the belief that it makes ones intentions and situatedness better known, the words somehow also become transparent, “see troughs” and one disappears again, just as the positivist eye.<sup>20</sup> So, this type of visibility request always leaves me to wonder what it actually is meant to mean.

I would like to think that humans are something more or other than context. Something so opaque that it can't come nowhere near transparency. Perhaps this is why I find the seemingly irrevocable hold situatedness has on people and thoughts unsettling. Jane Flax stresses, in line with Haraway's theoretization on situated knowledges, that there are no longer any innocent places from where one can speak.<sup>21</sup> The addressees of this I take it are researchers and policymakers working within and manifesting themselves through a more positivist tradition, and what Flax mainly issues is a prompt request for discussing the deep impact the formal divide between society and science has on understanding both. Science as form exists because it is visualized as harbouring unattached thoughts which are thought to then be given back to society as objectivity. Acknowledging that this notion of a linear model is greatly illusionary is fundamental also for Haraway's notion on situatedness. Yet I think there is a vital demarcation to make when it comes to acknowledging non-innocent places, and I think of it as one element that make the differences between “knowing about” and “knowing through” situatedness, which I suggested above. To me there is a difference in saying there are no space from where it is possible to claim truth or objectivity when speaking, than to proclaim as a consequence that everything has to be taken into account when trying to speak, and in this that you should ultimately be made accountable for all your speech. Having such clear insights as to the workings of mind and self is not given everyone. Reducing the term situatedness to “knowing about” invites no trying, no elaborating with thoughts and

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<sup>20</sup> Perhaps this has some part in what Haraway calls “the non-innocence of the category ‘woman’”, Haraway (1991) p. 157

<sup>21</sup> I find this to be Flax's main argument in her article, see Flax (1992)

words and being, it is a place from where it is mainly highly risky to speak. I do not think neither Flax nor Haraway intended it so.

And as I have tried to argue in this chapter there are limits to what one can expect from the accountability that comes from a knowing of thyself. A tendency toward what could perhaps be called “self accountability” in the production of anything really, not only research, as a sort of transformed consequence of the “postmodern” and Harawayian drive towards letting go of the great objective narratives, can as I understand it have reverse effects creating a newfound belief in transparency of thought and action. To me one underlying motive in this direction towards this particular notion of accountability of thought lay in the belief, or hope, that there can be actual clear and transparent understanding of virtually anything made or thought. It is as if getting rid of all ornament, everything overflowing and presumed non-functional would cleanse our-selves from the horrors of unattainable, opaque and non-decipherable thought.<sup>22</sup> Yet the pushing towards the need for everything’s identification then leaves the modernist objective and wish intact, in its adherents need for a type of closure. It runs parallel in some way to what Katherine Hayles calls a “platonian backhand”, where “reality” is reduced to something abstract, a model, which consequently comes to act as “the real” or ideal in which the reality “out there” is put into in order for the researcher to find and create scientific results.<sup>23</sup> And just as it is with Plato, it seems impossible to get away from the history of the notion of an ideal transparency in matters of (un)doing research or (un)doing science. The danger lies in believing transparency’s insistence, may it be putting adjectives and objectives onto yourself in a more postmodern manner, or in presuming the modern mode of having no adjective or objective attached to you at all.

## Function

“The essence of technology is by no means anything technological”, Martin Heidegger said in 1954. Technology has such a vast impact on society in its reality transforming ability that it changes and makes (im)possible ways of being and living. Its effects go beyond the “mere” borders of the technological artefact.<sup>24</sup> Donna Haraway singled out the term cyborg in 1985 as a manifestation of these types of emerging and ongoing societal changes as to what I understand point the feminist movement towards questions of accountability and non-existing innocent positions. The cyborg is a character of both the present and the future, it is an entity that

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<sup>22</sup> Baudrillard uses the term “singularity” to point to place/space/mind filled with things, acts and thoughts not clearly decipherable, which do not lend themselves to instant readability. Instead they are perhaps acts of curiousness. See Baudrillard (2001) chapters “Beyond Artificial Intelligence: Radicality of Thought” and “Living Coin: Singularity of the Phantasm”. Also Baudrillard (2005)

<sup>23</sup> Hayles (1999) p. 12f

<sup>24</sup> There is a vast theoretical field related to these questions, for a technoscience discussion see Trojer (2002), Gulbrandsen (2000), Haraway (1991), Haraway (2004)

Haraway calls figuration, and in this lays its potential for being both a dream and a reality.<sup>25</sup> A cyborg should not know where the body (man) starts and the technology (machine) ends. There is in a sense no interest to delineate the terms either for body or for technology, in that the demarcation only works as appearance. On a more societal level I think that the cyborg entity has equivalence in the term technoscience, which tries to reflect how the construction and usage of science is more and more intertwined and dependent on technological enterprises. Technology is an inescapable part of scientific production as well as reality-production.<sup>26</sup> Researchers are dependent on diverse technological artefacts in order to be able to do research, and so the technological artefacts set the boundaries and work as literal frames for what can be seen as well as how it is possible to see. Technological artefacts therefore hold a promise for visibility, and perhaps also a continuous hope of a total transparency of the world.<sup>27</sup> Vision is a most powerful tool then, in terms of its reflection onto matter and materiality, as Karen Barad shows in her essay on ultrasonography, where the technologically enhanced “eye” ultimately is used to decide life or death.<sup>28</sup> And as technology is the premise for research as much as research is the premise for technology, there is no clear demarcation to make as to where research ends and technology else starts. This is hereby said to create a non-linear mode of conduct and “doing”.<sup>29</sup>

The term technoscience is then thought to clear the confusion concerning the presumed demarcation between the entities science and society, and instead make them visible as *co-constructing*. If the premise is a will to show the loss of demarcated boundaries a term like embeddedness seems awkward, since it is not clear which of the entities has sunken down into the other. But I believe the terminology pose a problem. This is in part related to the conceptual field of what is often termed “mode 2”, where issues of co-construction are theoretically debated and practised. The problem as I understand it has to do with my own confusion as to what the terminology is meant to describe and function as. Does the terminology point to (1) a history full of misconceptions concerning scientific objectivity and the interlinked belief in scientific detachment from society, i.e. there has never been anything remotely similar to objectivity, or (2) does the terminology particularly of “mode 2” point to what its adherents see as an empirical description of contemporary time and/or (3) a normatively better way of doing things in general. If all three of these

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<sup>25</sup> See chapter 8 “A Cyborg Manifesto: Science, Technology, And Socialist-Feminism in the Late Twentieth Century” p. 149-181 in Haraway (1991)

<sup>26</sup> See further Trojer (199?). The issues discussed here relate primarily I think to the natural/bio/tech sciences

<sup>27</sup> Moving towards total visibility I think is closely linked to Haraway’s “Land, ho!” discussion on p. 221, chapter “The Biopolitics of Postmodern Bodies: Constitutions of Self in Immune System Discourse” p. 203-230 in Haraway (1991)

<sup>28</sup> Barad’s discussion chapter five “Getting Real: Technoscientific Practices and the Materialization of Reality” in Barad (2005) p. 189-222. See also Franklin (2003) taking a somewhat different approach, yet acknowledging the deep impact technological artefacts has on making things visible

<sup>29</sup> As Prof. Lena Trojer so aptly put it in conversation with me, that there is no clear demarcation between what is seen/developed/produced via technology apparatus and what technology apparatus is developed for being able to see/develop/produce

statements are incorporated in and depict “mode 2” as way of doing and as theory, the question of pointing to a history of scientific and societal belief in scientific detachment becomes a bit curious. This because it questions the actual need for having a new terminology called “mode 2” when consequently there has never been a real or actual something to name “mode 1”. And so, if something like “mode 2” with co-construction of science and society at the core was the actual conduct before, why call it “mode 1”? Is it to point to the previous lack of awareness in co-construction? The questions I have sketched here will be leading me when discussing the theory and practise of the mode “mode 2” concept in relation to what is made visible and thought of as *functional* for society.

As discussed by Gibbons et al. the concept of “mode 2” aims to puts focus on how scientific production is getting more and more interwoven with and dependent upon demands from society. This turn in scientific production should according to Gibbons et al. enable a higher degree of accountability when it comes to what is labelled the outcomes or *products* of science. Gibbons et al. also notice a more widespread willingness to work outside the presumed rigidity of the traditional disciplinary fields, and by doing so it marks an entry towards a more late (post)modern form of knowledge production. Here society in terms of local government and industry, and science in terms of research community are supposed to work together in order to solve problems that they find in society.<sup>30</sup> From what I understand when reading Sheila Jasanoff and Helga Nowotny, whom I both take as adherents to a “mode2” influenced conduct in scientific and societal production, the differences they point to between the two modes schematically looks as follow:

Mode 1: *socially disinterested, non-utilitarian, non-ideological Science*

Mode 2: *socially interested, utilitarian, ideological (?) science*

But is it the dream of scientific production made public in the above characteristics of “mode 1”, or is it the description of a crude historical fact? Were earlier scientific production totally unharmed by the so called unruly practices of reality, were the researchers totally disinterested in say, the need for cures to more basic infections, just to take one example of medical knowledge? What I think Jasanoff and Nowotny intends by this demarcation is to point to how the practitioners of “mode 1” *thought and think* of their own work as non-political, as simply going about doing research in “the culture of no culture”.<sup>31</sup> Yet, I believe what this type of demarcation between the two modes also show is a dream about perfect functionality. The content of the dream, to create a better society (or to create a model for a better society) seem to me to be intact no matter what mode, yet the form for reaching the dream is presumed to change quite dramatically depending on mode.<sup>32</sup> The “mode 2” practice,

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<sup>30</sup> Nowotny et al. (2001)

<sup>31</sup> See Trojer (2002) p. 56, quote from Sharon Traweek (1988) p. 162

<sup>32</sup> Creating and making (in)visible the differences between forms seem to be what party politics and political science is all about. See for example David Held’s discussion on democracy-models, in Held (2002). I think my

Jasanoff continues, has made questions of the kind “is it good science?” out of date and anachronistic. Instead of the old question another one has taken its place, which according to Jasanoff, has a more appropriate utilitarian approach asking “is it good science, what is it good for, and is it good enough?”<sup>33</sup> As a consequence to this request both Jasanoff and Nowotny only regard what they term “socially robust” knowledge something worthwhile doing.<sup>34</sup> Robustness will accordingly lead (the way) to a better societal whole. One formula for creating this kind of sturdiness comes from getting the academia, the private sector and government organizations working together. By working together, Jasanoff states, there will be a “wider range of potential observers” looking into scientific production and informing policy-making.<sup>35</sup> Robustness thus implies a larger degree of accountability, which seems to be fostered by a chain of openness and transparency.<sup>36</sup> Jasanoff writes:

“To be sure, *normative* considerations work against *total transparency* in government and may legitimately bar access to some stages or aspects of scientific knowledge production. These norms flow, in the first instance, from the *nature of scientific research itself*. Science as a process, depends in a certain amount of *unrestricted* trial and error, as well as on competitiveness among peers.”<sup>37</sup>

Although clearly stating that it is only what she terms “public science” with more direct consequences for the public that needs this extra attention towards accountability and larger awareness, I find that the most pressing question here is what *science* constitute and ideologically convey in these arguments.<sup>38</sup> Because is this type of argument not similar to what simultaneously is posed as the non-desirable old “mode 1” style of having self-regulatory Science? Defining “public science” in terms of “science used to support decisions of significant public concern” seems to me to be the same as saying circularly that science is “science used to support decisions of significant concern”.<sup>39</sup> It is so to say a rhetorically rather shaky description, which does not explain what constitutes as science in the terminology used. Nowotny on the other hand is more assertive of the role science as a whole should play in decision-making, unconditionally it should be the heaviest weighing object of expertise. When talking about accountability and quality control *in producing* mode-2 knowledge Nowotny states that “(s)cientific excellence is and remains the basis of producing good and reliable new knowledge”.<sup>40</sup> She goes on by saying that “(o)nce

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argument here can find some ground in Barad’s words, that “concepts are specific material arrangements”, see p. 196 in Barad (2007)

<sup>33</sup> Jasanoff (2006) p. 24, 26

<sup>34</sup> Jasanoff (2006) p. 26

<sup>35</sup> Jasanoff (2006) p. 26 Jasanoff aligns these arguments with “informed participation” p. 21, and “informed debate” p. 25

<sup>36</sup> Jasanoff (2006) p. 25 “(n)either institutions views disclosure as an unquestioned good, though both are firmly committed to openness and transparency”

<sup>37</sup> Jasanoff (2006) p. 22, my italics

<sup>38</sup> Jasanoff (2006) p. 24, Public science is “when science is generated to serve public purposes” p. 26. Weinberg (1972), points in a similar direction with his dichotomizing of science and trans-science

<sup>39</sup> Ibid

<sup>40</sup> Nowotny p. 2

there is awareness of accountability, (...) then it can become a way to broaden the horizon *for those whom you are producing knowledge*".<sup>41</sup> This is indicative of science as self-regulatory and regulatory in the lives of those who according to Nowotny are merely the passive consumers of knowledge production. According to these arguments, I take it that science remains as self-regulatory in reality as it ever was in the dream of "mode 1". Do these arguments then not go against the whole idea of a "mode 2"? If science is still the best source to prove right from wrong on all accounts, why talk about the importance of associating other parties? Jasanoff's arguments in my mind align with the idea that there can be truly unbiased research and science, and she displays this unrestrained when arguing the need for "sufficient detachment and distance" in order to understand scientific arguments.<sup>42</sup> If it is so, that the dream of Science still very much pertains, Bruno Latour's phrase "we have never been modern" merely becomes a stepping stone.<sup>43</sup>

Utilitarianism as part of the "mode 2" theory and practise has a long tradition. When John Stuart Mill published his essay on utilitarianism in 1861 he claimed it to be a theory of ethics promoting the only moral stance possible, which was to take into account and be led by the greater good in all matters of doing.<sup>44</sup> What the contemporary utilitarian-led ideal of "mode 2" is supposed to practically and ethically work towards when it comes to the *content* of knowledge production is not spoken of. And so, what kind of knowledge will be thought of as crucial and therefore useful asking from the perspective of societal utility? Somehow these requirements implicitly seem to quietly put an end to the old and new "dreary texts" within the field of humanities and arts. And so the normative foundation for the argumentation on knowledge as utility is exceedingly important, because should knowledge or scientific "production" be produced to satisfy societal/scientific needs, to create new societal/scientific needs, or perhaps to engage in a more critical stance towards need and how it is produced, enact and re-enacted in society/science? I do not want to propose here that these three types of thinking about need are mutually exclusive, yet I do want to propose that the motives for doing can spring from different ideological stances, particularly when it comes to the question of capital gain and investments. One other point important here is the evaluation of social relevance. Jasanoff argues in an article from 2003 that "technologies of humility" for policy-makers needs to be developed and implemented so as to ease the strain that could arrive from bad policy-decisions.<sup>45</sup> However, in terms of accountability, who is directed as finding parameters for and seeing and evaluating social relevance has great and grave relevance for its outcome. And if there are incentives to promote a splitting up of "public" versus "non- public" science, the way Jasanoff implies, this might grant a larger portion of investments on the "public" science divide, since it at

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<sup>41</sup> Ibid, my italics

<sup>42</sup> Jasanoff (2006) p. 34 and p. 42

<sup>43</sup> Latour (1991)

<sup>44</sup> Mill (1861, 2003)

<sup>45</sup> Jasanoff (2003) p. 16, contrasts this with what she terms "technologies of hubris"

least symbolically indicates a higher degree of social utility.<sup>46</sup> Another related issue in matters of deciding science utility is the increased number of research financed with external funding, which consequently means that the commissioner decides the area of interest for research. To relate back to Mill's argument on what constitutes utilitarianism for a moment, should it be the right of those with economical means and possibilities to describe the needs of a society?<sup>47</sup>

Feminist scholar Nina Lykke gives a somewhat differently directed answer to the questions of form and function of science, discussing not so much the co-construction of society and science, as arguing for another approach to what should constitute scientific research *within* the academia. Whereas Lykke briefly touch upon what she refers to as a pull towards a "massification" of academia, she does not elaborate what this "massification" further does to neither education nor education culture.<sup>48</sup> As I take it, this can't be related to a preferable scenario for Lykke, if one is to think about how the word "massification" is burdened by all kinds of hierarchical dimensions.<sup>49</sup> Perhaps this is a way to keep a rather clear hierarchy between what is taught in academia and what is not, and in this also keep the visualizing technique of seeing academia as standing outside the realm of society. Acknowledging that we (as researches) are in a contemporary unstable and uncertain now influenced by "mode 2", Lykke argues that feminist positioned research has a strategic advantage in continuing the opening up of spaces and earlier drawn disciplinary boundaries within the academia. In line with these arguments Lykke formulates Feminist Studies as a "postdisciplinary discipline", with the potential of creating "transversal dialogues" between multi-, inter-, and transdisciplinary theories and methods.<sup>50</sup> Hence, Feminist Studies should in practice work towards continually being both a discipline and dissolving the own disciplinary boundaries.

Still, a hope of dissolving reads to me like a hope for detachment. As I understand it, this hope is a modernistic thought-figure, to think one is able to detach oneself from history or tradition or discipline and become something completely else, something non-historical or a-historical.<sup>51</sup> If research is not related to or done in any discipline, there would perhaps be hesitations as to if it is still attainable to categorize it as part of a *theoretically* grounded visibility project.<sup>52</sup> There might also be hesitation as to do such research within the academia, since there would be no academia, in the old sense of the word, to talk about.

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<sup>46</sup> Jasanoff (2006) p. 24

<sup>47</sup> For a related issue, senior lecturer in Political Science Patrik Hall, makes visible in the latest issue of *Universitetsläraren* how ideological underpinnings determine the understanding of control and freedom in the debate about the university and its organization, p. 14

<sup>48</sup> Lykke (2009) p. 9 chapter 2. With education and education culture I refer to what in the Swedish language is a quite subtle distinction between *bildning*, which I translate quite badly to education culture, and *utbildning*, translated to education. In this distinction, education does not necessarily lead to education culture

<sup>49</sup> Storey (2001) p.17-35 on "the mass of mankind" (this quote p. 22)

<sup>50</sup> Lykke (2009) p. 7 chapter 2

<sup>51</sup> Svedberg (2000) discusses these issues in relation to modernistic architecture and the Bauhaus movement

<sup>52</sup> See note 14 above

## Form

The time has come for me to sum up what I have been discussing throughout this essay, to point to its form in a way. Jean Baudrillard pointed out no later than 1988 that we in the western societies live our lives in a sort of frenzy, partaking in the “ecstasy of communication”.<sup>53</sup> This frenzy relates to and stems from a need for instant visibility, which tries to make everything clear, understandable and transparent. In these circumstances the image as part of the visualisation techniques, has been *exhausted* of content and of meaning, it has become “an image where there is nothing to see”.<sup>54</sup> Thus, in this essay I have tried to oppose or argue against such views that I find are ways to keep on creating this hope or illusion of everything’s transparency. Instead I find much more comfort in the opaque, and so I linger on in the thoughts it gives me.

In this essay I try to relate transparency to function, arguing that it is problematic to visualize function as the right and only form, may it be in terms of thinking about scientific research and it’s relation to society, or when it comes to trying to get rid of all “excess” ornament in matters of thinking about context and situatedness. The concept of “form follows function” as an ideal, I argue, can thus be thought of as influencing much wider circles of thought than the architectural. In this I particularly think that the scientific need for removal or reduction of the unexplainable, into something coherent and explainable is actually about the removal or ornamentation, of things, acts and understandings that can’t be forced into words or theoretical models. And so the question if ornament is merely decorative, a filling before getting to the real function of things, I think has been and is still crucial. My hesitations throughout the text have been directed towards the notion of directness and transparency in thought. In this I think it is to ignore the density of thought and of being if one argues that the remedy for positivist objectivity is to become transparent. And so it is not that I want to argue for anti-function, or dysfunction in any way, because they are both very much within the modernist logic. They both have function as their reference, since it is only through the notion of perfect function that one can make claims on degrees of functionality. What I have been trying to silently argue for is another type of meaning, a meaning that is not so easily trapped in words, not something directly tangible or language-friendly, yet holds true significance.

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<sup>53</sup> I am referring to the title of Baudrillard’s work from 1988, *The ecstasy of communication*

<sup>54</sup> Baudrillard (1988) p. 31

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