A Sight/Site for Transparency or Opacity?

Notes on Knowledge Production and Feminist Technoscience

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Abstract

The objective for my research has been to put forward and discuss some aspects of knowledge production in relation to the epistemological positions of feminist technoscience, which lay emphasis on the contextual and the social embeddedness of both research and technology. My main inquiry has been how the relation between the subject and the surrounding context can be perceived epistemologically and how this in turn can be connected to and found relevant to the supposed new mode of knowledge production termed Mode 2.

The licentiate thesis is built on three essays which together form my main arguments around the epistemological questions of if and how it is possible to gain and attain knowledge, and how its value might be ascertained. In the three essays I have attempted to illustrate some aspects of and possible hindrances to understanding and knowledge, while addressing what a feminist technoscience epistemology could signify for knowledge production.

My intention in these three essays has also been to emphasize the ideological foundation of epistemological understandings, its implications both on what is viewed and valued as knowledge, and on what purpose knowledge production and research should have for and in society. In relation to these discussions I have tried to underline how feminist technoscience, as a research field, should be open to ongoing discussions about its own methodological, epistemological and ideological stances and its effects on research and society.

Keywords: *epistemology, knowledge production, feminist technoscience, situated knowledges, Mode 2, meaninglessness, transparency, opacity, function, representation*

Acknowledgements

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Part I. Prologue

Objective and Question

A substantial change in the practice and understanding of research and knowledge production has occurred over the last few decades. This has led researchers such as Michael Gibbons and Helga Nowotny to ascertain that a new production of knowledge, which they refer to as mode 2, has come into force. Characteristic of the new production of knowledge is a strong focus on the applicability of research into societal utility, which is endorsed by co-operation between authorities of the state, the private sector and academia.[1]

The changes within research and knowledge production, signified as mode 2, also point to larger societal changes related to late modernity. The creation of diverse technological artefacts, its exponential growth and use, seem parallel to these societal changes. Information and communication technology, abbreviated to ICT, directed towards digitalization of information, is one area of technological creation which has become increasingly prevalent and socially applicable.

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1 See Michael Gibbons, Limoges, Camille, Nowotny, Helga, Schwartzman, Simon, Scott, Peter & Trow, Martin (1994), *The new production of knowledge, the dynamics of science and research in contemporary societies*, Sage: Los Angeles, London & New Delhi. For a more thorough discussion on related matters, see the second essay of Part II below.

The social, scientific and political consequences of the technological development and its applicability form the field of research for feminist technoscience. Informed by the American researcher Donna Haraway, the feminist technoscience stance argues for the deeply contextual aspects of both technological development and scientific production.[2] Acknowledging research and knowledge production as a contextual practice should have implications both for the way research is practiced and the way its valuand utility is viewed.[3]

I draw on these assumed changes within research practice and knowledge production for the objective of my research. *The objective is to discuss some aspects of knowledge production in relation to epistemological positions of feminist technoscience which emphasize the contextual and the social embeddedness of research and technology.*

Three essays jointly form the main arguments of this licentiate thesis. They all revolve around the epistemological questions related to if and how it is possible to gain and attain knowledge, and how its value might be ascertained. The essays illustrate some aspects of and possible hindrances to knowledge and understanding, which find relevance partly in relation to the type of knowledge production categorized by Michael Gibbons et al. as being (of) Mode 2. In part, the essays are also an attempt to address and discuss what a feminist technoscience epistemology - both as a perspective and as a practice - could signify for knowledge production.

More explicitly, the research question that interests me is *how the relation between the subject as the producer of understanding, and the surrounding social context can be perceived, and how this in turn is related to and found relevant to the (supposed new) production of knowledge.*

How knowledge is perceived and seen as connected to the subject and to the surrounding context implies a certain understanding of the relationship between the two. The ideological foundation of epistemological understandings should therefore be discussed, since it has implications for what is viewed and valued as knowledge, and what purpose knowledge production and research has for society.

The technological development thus stands as a foundation or background to the questions discussed throughout this licentiate thesis. This means that I will not treat ICT as an explicit area for analysis. Instead my intention is to discuss some episte-

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2 This feminist technoscience approach also underlines that technology, such as ICT, has the capacity to alter reality and create new ones. See further in Lena Trojer (2002) *Genusforskning inom Teknikvetenskapen - en drivbänk för forskningsförändring, [Gender research within technoscience - a hotbed for research transformation]*, Högskoleverket: Stockholm.

3 If the understanding of research and knowledge as situated practices has been part of a more general understanding within the fields and disciplines of the humanities and the arts, at least more explicitly since the introduction in the 1970s of postmodernism and poststructuralism, it does not equally seem to be the case in the natural sciences and more technology-oriented areas of research. In this respect, feminist scholars of science and technoscience, such as Sandra Harding and Donna Haraway, for instance, seem vital in the ongoing discussions on the conduct of science and scientific inquiry. See Sandra Harding (1986), *The Science Question in Feminism,* Cornell University Press: Ithaca, NY & London, and Donna Haraway (1991), *Simians, Cyborgs, and Women*, Routledge: New York & London.

mological aspects related to a feminist technoscientific approach, and to the (new) production of knowledge.

In the first essay I discuss the poststructuralist idea of a sort of death of objectivity through the writings of the French thinker Jean Baudrillard. Employing a poststructuralist theory, where words are contextually made to signify, seems to put the whole idea of knowledge and research as objective fact into question.

With the help of Baudrillardian language and thought-figures I try to put emphasis on the need to create meaning and make matters intelligible, whether it is from a structuralist or a poststructuralist epistemological position. This implies that a poststructuralist approach also puts certain signification on words which then acts as a ground for a more collective understanding. The notion of the impossibility of finding a common ground called reality, and whether this also means the impossibility of determining whether one understanding or interpretation is better than another, works as the entry point for the discussion.

Some consequences of the idea of the end of objectivity are also brought forward in the second essay, in relation to knowledge production within academia. If there is no longer a possibility of objectivity, what role could research have? The second essay revolves around some of the epistemological issues pertaining both to more poststructuralist feminism and to feminist technoscience research in their focus on context and situatedness as a way to knowledge. To assume that knowledge production and research are done only through a contextual situation and understanding should have large implications for how research is conducted. Such an understanding also changes the way research is related to and found relevant for society.

In relation to these aspects, I discuss some of the possible consequences of accepting the idea that the results of research should be directed towards the political incentive of societal use and utility. The notion that a more pragmatic attitude, where the need for research applicability and societal utility seems central, clashes with the epistemological position of situatedness in research practices, seems vital to consider. If it is considered impossible to say anything about the world other than from a position of contextual situatedness, the question of how this can be utilized for society is of importance to the understanding and discussion on knowledge production.

The discussion on context and situatedness partly continues in the third essay, where I try to problematize representations as a way to knowledge about the world. The third essay engages in how interpretation, understanding, and making meaning of diverse types of representations tends to be described theoretically as either an effect of individual arbitrariness or of collective and societal structures. My main argument revolves around the work of Stuart Hall, whose research in the field of Cultural Studies I find has had a great impact on how the culture of late modernity has been understood and further theorized.

Understanding representations of diverse kinds, I argue, should fall under critical analysis in relation both to its producer and to its beholder. This is becoming increasingly pressing in the light of ICT-related practices and the proliferation of images attached to them. It also seems to become more pressing when the demarcation between

what is categorized as and presumed to be art, and what is presumed to be commercial advertising, tends to loosen or break down.

The three essays are an attempt to bring forward some perspectives on the question of the production of knowledge. These perspectives try to acknowledge some of the difficulties in gaining, attaining and ascertaining knowledge. Discussions on epistemology and its underpinnings and preconditions, in my view, are vital within a feminist technoscience approach if it is to become not just a way to affirm the status quo of ICT-produced realities, but instead a form and forum for diverse and critical enquiry into the production, proliferation and impacts of technology.

Consequently, feminist technoscience as a research field should be open to ongoing discussions about its own methodological, epistemological and ideological stances, and its effects on research and society. It is my hope that this licentiate thesis can contribute to the ongoing discussions of what a feminist technoscience approach could mean for research and knowledge production, not least in relation to the growing tendency in academia towards applicability of research in society.

Disposition

The licentiate thesis is structured in three parts.

Part I includes, in addition to the introductory chapter, "Objective and Question", the chapter "Theoretical Foundation". In that chapter I present the more general outlines of the research field called technoscience, and put emphasis on what a feminist technoscience approach could mean for research and knowledge production.

In relation to the epistemological understanding of the research field of feminist technoscience, I discuss how information and communication technologies (ICT) could be seen as part of large reality-transforming practices. This understanding raises significant questions of accountability which a feminist technoscience approach needs to address, both from a research perspective and from a societal perspective.

The last section of Part I is "Methodological Attempt", where my choice of working with text as material is discussed. In relation to this discussion I consider how my understanding of being part of, or distant from, what I am doing as a researcher differs somewhat from some feminist technoscience approaches. A more detailed introduction to the essays and how they relate to the main objective of the licentiate thesis will conclude *Part I*.

Part II consists of the three essays which jointly form the main epistemological arguments of the licentiate thesis by trying to acknowledge some of the problematic aspects of gaining, attaining and ascertaining knowledge. Resonating with these discussions is the question of what a feminist technoscience epistemological approach could signify in relation to (the supposed new) knowledge production.
The three essays are printed here in chronological order.

Essay I has been published, under the title "Meaninglessness in the Desert of the Real, or the Form of Meaning and Unpretentious Objects", in *Kritikos, an interna-*

tional and interdisciplinary journal of postmodern cultural sound, text and image, Volume 5, July-August 2008, ISSN 1552-5112, URL: http://intertheory.org/kritikos, for essay http://intertheory.org/molin.htm.

Essay II, "Function as the Objective Form. An essay on making things transparent", has appeared in *International Journal of Feminist Technoscience,* 2009:06, Open Peer Review Journal ISSN 1654-6792, URL: http://feministtechnoscience.se/2009/06/03/function-as-the-objective-form-an-essay-on-making-things-transparent-rebecka-molin/.

Essay III, "Notes on Representation and Visual Optics", has been submitted to *International Journal of Feminist Technoscience*, 2010:09, Open Peer Review Journal ISSN 1654-6792, URL: http://feministtechnoscience.se .

Part III is a conclusion, where I give a short summary of the licentiate thesis. I also briefly discuss how the licentiate thesis points to other research questions and to possible work henceforth.

Theoretical Foundation

This chapter presents the theoretical basis of the licentiate thesis. Technoscience, as an epistemological approach is outlined, with particular focus on knowledge and science as situated practices. In relation to the outline of technoscience, I consider what it is that makes the approach feminist by pointing to some of the ontological and epistemological understandings that it seems to share with other feminist stances.

Before discussing what constitutes a feminist technoscience approach, however, the chapter "Transforming Technology" considers its background, namely technology and technological development. Here I focus on what is called information and communication technology (ICT); since according to researchers within the field of feminist technoscience, ICT is part of large reality-transforming practices.

Finally, as a joining discussion, I consider how the presumed transformation of reality is consistent with new forms of doing, and how this doing needs to be related to questions of accountability. Accountability not only concerns those who participate in developing ICT, or those doing research within, on, or about ICT-related fields. Above all, it concerns those outside these fields of practices and power.

Transforming Technology

Information and communication technologies (ICT) are one of the dominating areas of technological development in contemporary time. There is a seemingly endless drive for information and information storage in and between western capitalist states.[4] It is not only the gathering and the (non-)sharing of information that is important, but also the speed of information seems essential in the need for the same.

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4 See further Paul Virilio (1996, 1989) *Försvinnandets estetik, [The aesthetics of disappearance]*, translated by Peter Handberg, Bokförlaget Korpen: Göteborg, or Jean Baudrillard (1988), *Ecstasy of Communication*, translated by Bernard & Caroline Schutze, Semiotext(e): New York.

According to the French philosopher Paul Virilio, the vector (*vecteur*) is a pivotal force in the development of life. The vector works in and through a multitude of ways, increasing the speed (*vitesse*) of everything from the transport of humans and objects to information. According to Virilio, with every historically specific increase in speed there is a corresponding inertia.[5]

Nowadays, being connected to the worldwide web via digital apparatus harbours the potential for the sensation of being everywhere while physically remaining in one place. Accordingly, it would seem that the type of increase in speed that "the digital era" has brought about, and continues to bring about, extinguishes space and distance as tangible obstacles for the subject.[6]

Through Virilio's argumentation the contemporary digital time becomes an inevitable material and immaterial consequence of the historical development and the change of speed.[7] This understanding, I find, does not diminish the deep scientific, social and political impact of technological development and use. Rather, Virilio's argument finds common ground with the technoscience understanding that ICT has the potential to alter not only our individual perception and understanding of what reality is, but also the way we engage individually and collectively within that reality.[8]

Given this understanding, ICT appears to have the capacity to change individual and collective habits, thoughts and ways of doing and being in the world.[9] Recognized as having the potential to transform the very concept of life, ICT then becomes what some technoscience researchers call, reality-producing.[10]

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5 Virilio: 1996, particularly chapter 3, p. 87-110, and the introduction written by Peter Handberg, p. 7-18.

6 Virilio poses the intriguing question whether or not the understanding of a more limitless being, ultimately puts an end to the notion of the subject (as it is understood in much of philosophy). See further in Virilio: 1996, chapter 3.

7 The argumentation resonates with a more Marxist understanding of historic materialism, see further in Karl Marx & Friedrich Engels (2002 (1848)), *Kommunistiska Manifestet, [The communist manifesto]*, Bokförlaget Arena.

8 **In order to do justice to Virilio's discussion, I think it is important to add that even if the description** of reality is similar between Virilio and a more technoscience understanding, the antidote or the suggested measures for change might not be. I discuss some related issues in the chapter "Feminist Technoscience" below.

9 A number of feminist and feminist technoscience discussions problematize these issues, some of which will be discussed in the chapter "Feminist Technoscience" below. Here I point to a few of the researchers working within these fields. For a compilation of Donna Haraway´s work, see Haraway (2003), *The Haraway Reader,* Routledge: New York & London. Also Allucquere Rosanne Stone (1996), *The War of Desire and Technology at the Close of the Mechanical Age*, MIT Press: Cambridge MA. Karen Barad elaborates on the materiality of language and meaning-making in relation to technological apparatus, see Barad (2007), *Meeting the Universe Halfway. Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press: Durham NC & London.

10 **See Elisabeth Gulbrandsen (1995),** *The Reality of our Fictions. Notes towards accountability in (techno)science,* licentiate thesis, 1994:20, Luleå tekniska universitet. Research done within the Division of Technoscience Studies at Blekinge Institute of Technology, Sweden, revolves around

After such an assertion, I find that the question of *what kind of realities ICT is producing* should become increasingly pressing. Additionally, the deeply intertwined and related issue regarding responsibility - or in terms more keeping with feminist technoscience, accountability - for these realities should become an equally pressing matter.[11]

In relation to these issues I find it important to relate more closely to one reality-producing aspect of the vast area described as ICT, and to bring forward some of its possible consequences. It is an aspect which pertains to the notion of "social networks", and to the argument that the usage of such networks and technologies could lead to or rather, has led to a "flattening" of the hierarchical structures in society.

Sighting and defining an area of concern, bringing it forward and making it stand out in front of other areas is ultimately an excluding practice. The following paragraphs are a way to emphasize the importance of not losing sight of the political and ideological underpinnings of theory and practice, and particularly, of choice.

Within what are more commonly called "social networks" and "social media", sharing and distributing diverse types of information is an activity which is performed by millions of users on a daily basis.[12] Corresponding it seems, to the proliferation of information sharing within 'social networks' seen in recent years, is the notion that these networks function, or could potentially function, as a way to flatten the hierarchical structures in society.

The notion of flattening, or horizontality, is related to how the content of the "social network" in principle consists of the information that the participating users share. Consequently, the users engaged in a "social network" fill it with content, whether it is in the form of text, sound or images.[13] In this sense, sharing could be thought of as

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these issues, partly in relation to questions of the impact and signification of ICT for diverse types of knowledge production. See for example Peter Giger (2006), *Participation Literacy: Part I: Constructing the Web 2.0 Concept,* Blekinge Institute of Technology Licentiate Dissertation Series 2006, Blekinge Institute of Technology: Karlskrona, Peter Ekdahl (2005), *Medieteknik i en senmodern tid. Digital teknik, estetik och gestaltning, [Media technology in late modern time. Digital technology, aesthetics and expression]*, Blekinge Institute of Technology Doctoral Dissertation Series 2005:7, Blekinge Institute of Technology: Karlskrona, and Pirjo Elovaara (2004), *Angels in Unstable Sociomaterial Relations*: Stories of Information Technology, Blekinge Institute of Technology Doctoral Dissertation Series 2004:2, Blekinge Institute of Technology: Karlskrona. For an overview of related research in a Swedish and Nordic context, see Trojer: 2002.

11 If ICT is understood as reality-producing, it should also mean that it is acknowledged as a very powerful force in contemporary time, which encompasses not only people, but seemingly also the general development of the world. Arguing that ICT is part of the general development of a society seems to reinforce and reinvest power into ICT.

12 Facebook is one of the major social networks with more than 400 million "active users", 50% of whom log in daily. For current statistics see, http://www.facebook.com/press/info.php?statistics, and in addition read the policy document on http://www.facebook.com/policy.php, accessed 2010-05-21.

13 This is a brief outline of what the concept of web 2.0 signifies, see further in Giger: 2006. For a Master´s thesis that discusses ICT, gender relations and the work with a more participatory aligning through usage of the worldwide web (described as web 2.0) in some Swedish libraries, see Elin Lundberg (2007), *Genus och informationsteknik- En studie av kön/genusrelationer bland*

an individual practice, which collectively is presumed, if not to undermine, at least to loosen the more traditional societal power structures.[14]

Through the use of the worldwide web and different types of "social media" it suddenly seems possible to circumvent the more traditional distribution channels. This circumvention is also part of the notion of flattening, and its occurrence seems to be a way to conclude that "the chosen few", who historically have represented the voices of a time and a culture, should no longer be few nor have as much power at their disposal.[15] Accordingly, through the use of technological apparatus it seems one could easily become as much a literary critic as is the Swedish Academy member Horace Engdahl, and perhaps become read by a far larger audience.[16]

The societal impacts of the diverse types of "social networks" and of ICT more generally, are not something that can be viewed as a singularly good or bad phenomenon. As with the proliferation of images or visual matter, it could indicate either an increase in their potential for making meaning and creating understanding as much as it could indicate a lessening of the same. What it seems to show is that this kind of activity is meaningful to many individuals.[17]

In Sweden it seems there is a political incentive to use "social networks" in order

bibliotekspersonal, [Gender and information technology - a study of sex/gender relations among library personnel], Magisteruppsats i Biblioteks- och informationsvetenskap, Institutionen för Biblioteks- och informationsvetenskap, Bibliotekshögskolan, Högskolan i Borås.

14 This could be viewed as analogous to Göran Greider's argumentation in his recent book, where liberalism is discussed as a collective form of individualism. See Göran Greider (2010), *Det måste finnas en väg ut ur det här samhället, [There must be a way out of this society]*, Ordfronts Förlag: Stockholm. The understanding could also be regarded in relation to what Swedish sociologist Johan Asplund calls "asocial talkativeness", which is a way to effectively maintain the appearance of social responsiveness and reciprocity. This would indicate that sharing is not a solely shared activity, but a non-sharing one. Asplund uses the term "asocial pratsamhet" in Johan Asplund (1987), *Om hälsningsceremonier, mikromakt och asocial pratsamhet, [About greeting ceremonies, micro power and asocial talkativeness]*, Bokförlaget Korpen: Göteborg, especially p. 37-48.

15 For an affirmative exposition, see Peter Giger & Lena Trojer (2007), "From Control to Networks in Academic Publishing: Introduction of an Open Peer Review International Journal", URL: http://feministtechnoscience.se/2007/04/11/from-control-to-networks-in-academic-publishing/, accessed 2010-09-01.

16 Engdahl writes: "Under de femton åren förvandlades livsrummet för essäistik och seriös kritik på ett kännbart sätt. 1989 varade ännu kulturtidskriftens renässans. 2004 avtecknade sig redan bloggosfärens förestående triumf. Den intellektuella publiken är skingrad: kanske inte försvagad men svårare att utskilja." See p. 7-8 of the introduction in Horace Engdahl (2009), *Ärret efter drömmen, [The scare after the dream]*, Albert Bonniers Förlag: Stockholm. In relation to "the ecstasy of communication" that Engdahl proposes here, see Baudrillard: 1988.

17 The Swedish daily paper SvD has run a series of articles on the "social network" Facebook entitled "Livet på Fejan", see further URL: http://www.svd.se/nyheter/idagsidan/. See the article by Maria Carling, "Vilken typ är du på Facebook?", SvD, 2010-08-17, URL: http://www.svd.se/nyheter/idagsidan/vilken-typ-ar-du-pa-facebook_5143191.svd, accessed 2010-09-01. Also Anders Mildner, "Facebook har sprängt jantelagen", Sydsvenskan, 2010-08-01, URL: http://www.sydsvenskan.se/kultur-och-nojen/article1192973/Facebook-har-brsprangt-jantelagen.html, accessed 2010-09-01.

to loosen, it is asserted, the deeply rooted political power structures and to simultane-ously let citizens partake in political decision making. The formal motive seems to be transparency for citizens/customers/users, with the prospect that transparency might ultimately change political decisions and the way these decisions are made.[18]

One consequence of this incentive seems to be that politicians, officials and other elected representatives, willingly or unwillingly, become candidates for blogging and for partaking in "social networks".[19] Since "social networks" have been acknowledged by politicians and those in power, by business and capitalist interests alike, "social networks" are not merely used by individuals in their more private capacity. Another consequence of the usage of "social networks" can thus be seen in that the boundaries between private and public, work and leisure, are becoming exceedingly thin and loo-sened. In turn, this seems to have put the reliance on professional confidentiality and the discretion of diverse officials into question.[20]

There should perhaps be an inclination towards wariness in relation to the arguments of flattening and horizontality, which is related to what the two concepts make sym-bolically seem distant and dispersed. Such wariness would include an awareness of the lived structural imbalances of power that exist in everyday life, which force people to make certain decisions while leaving others behind.[21] It would also include an aware-ness of those who do not have, or do not feel that they have, the possibility to choose.[22]

In a western culture where individualism is stressed, it seems as though talking in terms of power structures deeply affecting life simply re-affirms a society still very much enforced and enclosed by lived categories such as sex, gender, class, sexual orien-

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18 A similar argumentation was put forward in a seminar regarding the project "X-Ovation", ow-ned by the Triple-Helix organization Netport.Karlshamn, Blekinge, Sweden, on 6 May 2010. For further information see www.x-ovation.se.

19 See further Agneta Lagercrantz, "En politiker får räkna med att bli citerad", SvD, 2010-08-24, URL: http://www.svd.se/nyheter/idagsidan/en-politiker-far-rakna-med-att-bli-citerad_5176889. svd, accessed 2010-09-01, and Catia Hultquist, "Stajlad politik", DN, 2010-05-10.

20 See Mikael Bondesson, "Nya regler för kommunala twittrare", DN, 2010-04-29, URL: http://www.dn.se/nyheter/sverige/nya-regler-for-kommunala-twittrare-1.1085386, accessed 2010-09-01 , and Joanna Wågström, "Cheferna oroas över Facebook", DN, 2009-09-24, URL: http://www.dn.se/ekonomi/cheferna-oroas-over-facebook-1.959225, accessed 2010-09-01.

21 A Marxist theoretical stance would perhaps adopt the view that something is being consciously hidden through the notion and usage of "flattening", and that the real issue of structural injustice thereby (still) is left untouched. See, for instance, Pierre Bourdieu (1984 (1979)), *Distinction. A Social Critique of the Judgement of Taste,* Routledge: New York & London. In Bourdieu's argumen-tation, class and the notion of belonging to a certain class becomes the basis for understanding and for making distinctions and decisions. Also, Beverly Skeggs discusses how gendered power relations and their embeddedness in class affect and reflect both distinctions and decisions. See Beverly Skeggs (1999 (1997)), *Att bli respektabel. Konstruktioner av klass och kön, [Formations of class and gender. Becoming respectible],* Daidalos: Göteborg.

22 This stresses the importance of regarding "individualism" as an ideological standpoint. See the newspaper article by Ann Heberlein, PhD in Ethics, "Skrämmande antologi. Visionerna om män-niskors rättigheter saknas", DN, 2010-05-10, where Heberlein relates choice to social, economic and cultural capital.

tation, geographical position, religious beliefs and ethnicity.[23] Stressing individualism is an ideologically grounded positioning, however, which partly avoids or disregards structural and economic hindrances for making choices. In this respect it becomes a visualization technique, partly similar to that of "flattening". The more formal symbolic shift that this type of language use seems to induce would then benefit from being problematized in relation to societal power structures.[24]

To return briefly to the introduction of this licentiate thesis and my objective, the reality-producing practices which I have discussed here could be understood as both a part of and an effect of what Michael Gibbons et al. calls the new production of knowledge.[25] Thus, if these types of understandings and practices of being are part of ICT's reality-producing character, what can a feminist technoscience perspective bring forward, elucidate or make (more) visible? These issues will be discussed in the next chapter.

Feminist Technoscience

The concept of technoscience stems from interdisciplinary research by scholars such as Donna Haraway, Karen Barad and Bruno Latour.[26] Technoscience is supposed to

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23 **From a postmodern perspective it seems as though the theoretical stance of Marxism, for** instance, with its focus on historic materialism is outmoded. Due to its teleological modus the theoretical model could be dismissed as static, since all events can be related to or seen as an effect of the more or less all encompassing model. In a more postmodern condition, theories of this kind seem to create structural hindrances rather than understanding or solving them. This condition is what French philosopher Jean- François Lyotard wrote about at the beginning of the 1980s, concluding that there might be ideological and economic interests in affirming the individual will and the downfall of the meta narratives. "När makten heter parti, triumferar realismen [ ] [n]är makten heter kapitalet, och inte partiet, visar sig den 'transavantgardistiska' eller 'postmoderna' lösningen, [ ] bättre anpassad än den antimoderna lösningen", quote p. 85-6 in Lyotard (1982),"Svar på frågan: Vad är det postmoderna?", ["Answer to the question: what is the postmodern?"], in Mikael Löfgren & Anders Molander (eds.) (2003) *Postmoderna Tider?, [Postmodern times?]*, Norstedts: Stockholm, p. 80-93.

24 The unwillingness to regard modernism and the "Grand Theories" as legitimate is perhaps due to a deep rooted mistrust for authority in the present time. Yet, scrutinizing modernism within the realm of postmodern thought and practice means that another type of trajectory and understanding of the world and the things in it is being used. It is not that there is no truth to be told at all. Even if a more postmodern trajectory appears to encompass a pluralistic strategy where contextual and individual understandings are stressed, the majority of societal institutions still work within and perform the more modernistic model which implements power over the individual, the symbolic and on the societal structure as a whole.

25 These practices could at the same time also be seen as catalysts for and effects of what Fredric Jameson terms "the cultural logic of late capitalism", and part of structural demarcation breakdowns between societal areas such as, for instance, the humanities and technology, art and commercial advertising, and work and recreation. See further Frederic Jameson (1991), *Postmodernism, or, The Cultural Logic of Late Capitalism*, Duke University Press: Durham NC.

26 Donna Haraway is a researcher within the field of the history of science, Barad works within the field of theoretical physics, while Bruno Latour works within the field of sociology. Haraway

denote the notion that technology, as well as science, are situated practices done within specific historical and societal contexts.[27] The practices of science and technology - which are presumed to be perceived within its own disciplinary boundaries and in society more generally as an objective activity carried out by impartial researchers - are thus put under scrutiny and problematized.

Parallel with trying to situate the practices of technology and science, the interlinking between the two is stressed by researchers within the technoscience field. This is done partly by pointing to the dependence on diverse technological apparatuses for research, in that the apparatus enables the carrying out of scientific research.[28] In this sense technology is perceived as a forceful agent, an "aktant", and thus as a powerful co-constructor of research and science.[29]

The notion that not only humans have agency seems to stem from the understanding that interaction between humans and technology is a meaning-making practice, which is neither predetermined nor teleological. Rather, it is through interaction that both technological apparatus attains meaning from how humans perceive and understand it, and humans come to understand themselves through perceiving and understanding technology. Accordingly, the boundaries or demarcations between humans and technology are performed through interaction.[30]

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writes: "I want to use technoscience to designate dense nodes of human and nonhuman actors that are brought into alliance by the material, social, and semiotic technologies through which what will count as nature and as matters of fact gets constituted for – and by – many millions of people. All the actors in technoscience are not scientists and engineers, and scientists and engineers are an unruly lot." Quote p. 50, chapter 2 "FemaleMan©_ Meets_ Oncomouse™ Mice into Wormholes: A Technoscience Fugue in Two Parts", p. 49-119 in Donna Haraway (1997), *Modest_Witness@Second_Millenium. FemaleMan©_Meets_OncoMouse™,* Routledge: New York & London.

27 The term technology should be understood as a generic term which includes, for instance, ICT, biotechnology and material technology. *My intention here is not to re-evaluate or problematize the inclusions or exclusions of the term technology, nor the term ICT.* For a more elaborate distinction and classification, see Trojer: 2002, especially p. 8-9 where Trojer writes, p. 9: "Gränserna mellan naturvetenskap och teknik tenderar att bli allt svårare att dra, vilket sannolikt bidragit till den ökade användningen av teknikvetenskapen som vetenskapligt begrepp." See also Elovaara: 2004, in relation to sighting some of the boundaries of information technology.

28 See Lena Trojer (2009), "CLEAN AND UNCLEAN FACTS. Diffractions on Knowledge Production", in Cecilia Åsberg (ed.) (2009), *Gender delight: science, knowledge, culture, and writing, for Nina Lykke*, Linköping University, Faculty of Arts and Sciences, Tema Genus: Linköping.

29 For the term *aktant*, see Anne-Jorunn Berg (1996), *Digital Feminism*, Norwegian University of Science and Technology, Centre for Technology and Society: Trondheim. Karen Barad offers the explanation that there is no clear demarcation between the technology apparatus and what the apparatus is constructed to see for research purposes. Ultimately it seems Barad's discussion points to the inevitable, that technological apparatuses should be understood as a matter of life and death. See further in Barad: 2007, chapter 5 "Getting Real: Technoscientific Practices and the Materialization of Reality", p. 189-222.

30 Barad use the term *intra-action* to describe how humans and non-humans (as technological apparatus) come to appear as humans and non-humans through interaction with each other. This stance Barad calls *agential realism*. My main concern in relation to Barad's discussion has to do

In some technoscience literature the term "science" seems to be used more as a generic term for the disciplines which are categorized under the natural sciences, for instance, biology, chemistry or physics.[31] However, the usage of the term science, as I understand it, points not only to specific areas of research within the natural sciences but more to a certain set of ontological and epistemological premises for research and knowledge production.

These premises are understood as part of a more positivistic understanding of the world and of research, governed principally it seems by the idea that research and researchers can discover the objective truth about the world. The technoscience critique of science and technology then pertains not only to natural science and technology-related fields of research, but also to research understood as stemming from a more positivistic tradition.[32]

The two terms, (natural) science and positivism correlate somewhat in the literature, as if they were signifying the same ontological and epistemological position. I think there is a need to be somewhat cautious towards an excessive usage of the term positivist, and the labelling of what is and what is not a positivistic approach. If I am to understand Haraway, believing in a more commonly shared understanding of the world, in a sense a more objective one, does not need to imply a positivist approach in matters of research.[33]

Technoscience studies as a way of doing and thinking about both science and technology appear to have sprung from unease with and an awareness of the dangers of making objective truth claims about reality. One effect of this understanding is an emphasis on the fundamental relationship between research, knowledge production and society.

Underlying this emphasis is the assertion that research and knowledge production done from a more positivistic approach could have, and have had, grave consequences for society. Accordingly, with an epistemological emphasis on research activities as situated or located practices within society, the possible negative effects on society are presumed to be mitigated, more limited or non-existent.

From such a perspective and an epistemological stance, the researcher is no longer able to withdraw or free herself or himself from descriptions of reality in matters of research. From the perspective of Haraway, "seeing everything from nowhere" is no

with what precedes interaction in terms of understanding, and what follows interaction in terms of memory and recognition. See further in Barad: 2007, especially chapter 5 p. 189-222.

31 See, for instance, Barad: 2007, Trojer: 2002 or Haraway: 1997. Biology, physics and chemistry are generic terms that all hold a number of sub-disciplines and areas of expertise.

32 Haraway: 1991, especially chapter 9, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective", p. 183-201. This implies that a number of different theories and methods outside the natural sciences and technology-related fields, categorized as more positivistic in their approach, could potentially be criticized by a technoscience epistemology.

33 I refer to the passage in Haraway: 1991, p. 188 where 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*" and p. 189, "(…) allows us to construct a usable, but not an innocent, doctrine of objectivity".

longer a legitimate claim that science as a whole, or individual researchers, can make.[34] Instead Haraway elaborates that all research and knowledge production, including feminist research and knowledge production, could be understood as practices that are non-innocent. To stress the non-innocent character of research appears to be an inevitable conclusion for Haraway, closely tied to matters of accountability. Practising accountability then is one way to avoid doing what Haraway calls "the God-trick".[35]

What is it that makes a technoscience approach feminist? Its epistemological stance, which recognizes both the producer and the production of research and knowledge as situated and contextual, is nowadays part of a broad or more general understanding within the humanities, and could certainly fall under a number of epistemological stances therein. [36]

On the other hand, this does not seem to be the case to the same extent in the more formal understanding and practice of the natural sciences and technology-oriented areas of research. In order to understand what a feminist technoscience stance could constitute, it is necessary to consider how gendered power relations matter to technology and vice versa.

The diverse technology-oriented areas of education, research and work are still largely dominated by men. Technology and its related areas have traditionally been signified as male, and more generally understood as part of masculinity. Technology as male and masculine seems to partly reflect the androcentric and mechanistic view of the world which sprang from the ideas and practices of the Scientific Revolution. Nature (as/and women) were seen as inferior to man (men as/and culture), and through exploration (exploitation) it was to be subordinated and to succumb.[37]

In view of this, technology has become imbued with hierarchical dualisms and gendered power relations, and can accordingly not be understood without its deep intertwining with and connection to both the construction and the reinforcing of femininity and masculinity.[38]

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34 For quote see Haraway: 1991, p. 189. Also related to these arguments is Haraway: 1997.

35 Haraway: 1991, p. 189: "seeing everything from nowhere" is in this sense equivalent to doing a "God-trick".

36 Some aspects of a more poststructuralist stance will be discussed further in the chapter "Methodological Attempt". Donna Haraway has been influential over and through disciplinary boundaries, influencing diverse researchers and their inquiries with her theory of science and technology. Connecting Haraway's writings with a more trans- or interdisciplinary approach, see further Nina Lykke (2008), *Kønsforskning. En guide til feministisk teori, metodologi og skrift, [Feminist Studies. A guide to intersectional theory, methodology and writing]*, Samfundslitteratur: Köpenhamn. Also the chapter "Interdisciplinary Is Risky", p. 45-7 in Donna Haraway (2000), *How like a leaf. An interview with Thyrza Nichols Goodeve*, Routledge: New York & London.

37 See further Carolyn Merchant (1994 (1980)), *Naturens död. Kvinnan, ekologin och den vetenskapliga revolutionen, [The death of nature. Women, ecology and the scientific revolution]*, Brutus Östlings Bokförlag Symposion: Stockholm/Stehag. Also Haraway: 1997, and Ekdahl: 2005 for a discussion on the mechanistic world view.

38 As researchers within the field of 'Science and Technology Studies', often shortened to STS, argue, technology cannot be understood as a social, cultural and economic phenomenon without

One conclusion to draw from this is that if technology and science is not addressed and discussed in relation to gender relations, as well as other power relations, it cannot provide for or constitute a way to destabilize or weaken these relations.[39] Feminism and gender research in general could be thought of as directed towards sighting and making diverse power relations visible in order for change to be made. Such an undertaking requires critical inquiry and cautious awareness when sighting the numerous interlacements of power relations.

Thus, I find there is a tension between emphasizing the already affirmed gender relations, via technological apparatus, for instance, and emphasizing the more performative interaction discussed above, where there appears to be less recognition of what has already formed humans before interaction with technology takes place. The tension I believe relates to how easily categories seem to work to affirm and confirm, and how easily they disappear when structural matters become just a question of subjective performance.

Not merely to re-affirm and cement sex, gender, sexual orientation, class, and ethnicity, for instance, as more or less static prerequisites for all thought and agency, but at the same time also not to lose sight of the way these lived categories deeply affect and circumscribe, bound and restrict us, seems crucial from a feminist technoscience stance. To acknowledge the multifarious tensions between the individual and the collective, of imposing structures on individual construction intertwined with both science and technology, and not to circumvent them, I find, should be a part of accountability in doing feminist technoscience research.

In my understanding, which has been further strengthened by working within a technical faculty where diverse media technology content is produced daily, it is here, in the midst of such ongoing entanglements and power relations which I have schematically discussed in this chapter, where a feminist technoscience stance finds relevance.

also acknowledging its entanglement with and dependence on gender relations. STS is a field of research where science, technology and society is discussed and understood as social constructions and cultural practices, see for instance Judy Wajcman (2000), "Reflections on Gender and Technology Studies: In What State is the Art?", *Social Studies of Science*, 30:2000:3, p. 447-464. For an overview of the STS field, see Kristin Asdal et al. (eds.) (2001), *Teknovitenskapelige Kulturer, [Cultures of technoscience],* Spartacus Förlag: Oslo, p 19-90, particularly p. 27-30. For Haraway's critiques of the STS research field, see p. 189-206. Also related to the discussion is Kristin Asdal et al. (1998), *Betatt av viten. Bruksanvisninger til Donna Haraway, [Smitten by knowing. Instructions to Donna Haraway]*, Spartacus Förlag: Oslo, particularly p. 39-74.

39 See for instance Maria Lohan (2000), "Constructive Tensions in Feminist Technology Studies", *Social Studies of Science,* 30:2000:6, p. 895-916. Also Boel Berner (ed.) (2003), *Vem tillhör tekniken? Kunskap och kön i teknikens värld, [To whom does technology belong? Knowledge and sex in the world of technology]*, Arkiv förlag: Lund. In the chapter entitled "Teknikfrågan i Feminismen", ["The science question in feminism"], p. 23-52, Wendy Faulkner discusses how the theoretical understanding of the "socio-technical" developed by STS researchers could induce a change in the perception and the performance of technology and gender relations. For related issues discussed, see Elisabeth Sundin & Boel Berner (eds.) (1996), *Från symaskin till cyborg: Genus, teknik och social förändring, [From sewing machine to cyborg. Gender, technology and social change]*, Nerenius & Santérus Förlag: Stockholm.

Here it could become not only a way to affirm the status quo of the ICT-produced realities, but instead become a form for diverse and critical inquiry into the production, proliferation and effects of technology. It could be a way to address technology more at its core, its developers and practitioners, so as to make accountability matter.

To sum up, from such a position, the field of analysis and critical inquiry becomes technology in society and/or society in technology, and the deep intertwining between the production of knowledge and the effects of technology as reality-producing. How the epistemological stance of feminist technoscience relates to a methodological approach is discussed in the next chapter.

Methodological Attempt

A theoretical stance is often accompanied by a preferred mode of procedure, in that theory suggests a certain methodological approach to attain the answers or questions sought. According to a feminist technoscience approach, the answer to the phrase coined by the feminist philosopher of science, Sandra Harding, "the science question in feminism", is not to adopt and practice a specific set of presumed more feminist methods, or to press for objectivity.[40]

Using a specific method, or set of methods, then does not account for a feminist understanding when doing research. Instead, recognizing the epistemological foundation of one's own claims in relation to more ontological understandings of for instance gender power relations seems crucial. It is how the relation between being and knowing is understood and practiced more generally, where differences among feminists are made known.

As I discussed in the above chapter, a feminist technoscience stance emphasizes the epistemological position and practice of "situated knowledges" as a way to forego the "God-trick" of objectivity.[41] What I want to consider in this chapter is some aspects of this epistemological stance which I have carried with me throughout the writing of this licentiate thesis and which is also reflected in my objective.

These aspects have to do with my understanding of how to do research from a position of being situated, and of how text and language come to signify and matter in context. The licentiate thesis is a text about texts. From a more qualitative and comparative basis I discuss different entries to the subject of knowledge production. It is also made possible through a context. How I position myself - and how I understand this position to be relevant for my material - is of importance. With these discussions I try to tie the previous theoretical chapter together with a method or a practice, as a way to put text into context.

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40 For this phrase, see, Harding: 1986. Harding's answer to the question is "strong objectivity". See Haraway's discussion at Haraway: 1997, p. 35ff. Feminist technoscience as an area of research could be thought to transgress the more traditional, academically drawn disciplinary boundaries. In this respect it is affiliated with such feminist approaches which describe themselves as more trans- or interdisciplinary. Further in Lykke: 2008.

41 Haraway: 1991, particularly chapter 9 and Haraway: 1997.

Distance and Closeness

"The linguistic turn" is meant to indicate a shift in the perception of language which occurred with and through the poststructuralist theoretical stance initiated in the early 1970s. [42] Adopting a poststructuralist view schematically means that the structuralistic presumed objective assertion between a word (sign) and its referent in reality loosens or breaks. What language is supposed to describe objectively in reality is instead understood as an arbitrary construction with no true or real referent.

From a poststructuralist perspective, describing the world and the things in it becomes more a matter of ideology and politics, and with it description can never be an impartial activity.[43] As a consequence, reality is also questioned, since the descriptions of reality and what is presumed to be real are deeply entangled with each other. More so, what is understood as reality is acknowledged as part of historically specific contexts.

The argumentation raises a number of issues related to the intertwining of text, context and time. If language, knowledge and the perception of a reality are all arbitrary and especially are deeply bound to the individual this affects how both text and context are understood and related to each other. What becomes of research with its direction towards deepened understanding and description, and what becomes of text when it can no longer make claims of impartial knowledge and understanding?[44]

From the epistemological position of feminist technoscience the answer, as I understand it, is a partial and non-innocent perspective. It is one way to resist relativism, while still arguing for the inevitability and necessity of a context, of being in a time and place, in Harawayian terms of being situated and "how to become answerable for what we learn how to see".[45]

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42 "The linguistic turn" is intertwined with "the pictorial turn" briefly described in Yvonne Eriksson & Anne Göthlund (2004), *Möten med bilder, [Encounters with images],* Studentlitteratur: Lund, p. 20-21. The poststructuralist stance gives something of a background to the cultural expressions of postmodernism. The historian Perry Anderson traces the history of postmodernity, where the writings of Roland Barthes along with those of Fredric Jameson and Jean-François Lyotard are central to the understandings of a postmodern time and space from the 1970s onwards. See further in Perry Anderson (1999 (1998)), *Postmodernitetens ursprung, [The origins of postmodernity]*, Daidalos: Uddevalla. For Cultural Studies scholar John Storey, the downfall of the "meta narratives" of modernism is crucial in understanding and addressing contemporary cultural phenomena. See John Storey (2001), *Cultural Theory and Popular Culture. An introduction.* Pearson Education: Harlow, UK.

43 See chapter on poststructuralism in both Storey: 2001 and Arthur Asa Berger (1999 (1995)), *Kulturstudier. Nyckelbegrepp för nybörjare, [Cultural criticism. A primer of key concepts]*, Studentlitteratur: Lund. Also Roland Barthes (2000 (1957)) Mythologies, selected and translated from French by Annette Lavers, Vintage: London.

44 Perhaps this is one dilemma or paradox within poststructuralism. If all de-signs or things spoken of are bound to be biased, what is the point anyway?

45 Haraway: 1991, quote p. 190 in chapter 9: "Feminist objectivity is about limited location and situated knowledge, not about transcendence and splitting of subject and object. In this way we might become answerable for what we learn how to see."

What I want to consider here is part of my position or situatedness as a researcher and it concerns my hesitations towards both the idea of having either an inside or an outside perspective, and how aware one can be of one's own position or situatedness. My intention here is not to argue against the epistemological understanding and practice of "situated knowledges" or the importance of context, but to consider some of the possible consequences a shift in signification might have.

Haraway's term "situated knowledges" points to the relation between the producer of knowledge and the societal context. In her later work I find it also intertwined with the term "semiotic-material practices", which is intended to signify that how we conceive reality and our context affects how we engage in that reality and in context, and so notions come to matter by being practiced.[46]

To practice situatedness in knowledge production and research is understood as a way to avoid omnipotence and to become accountable. Yet, arguing for contextual understanding and for seeing the con-text in text, could potentially become problematic if the use of context is understood and taken as a rather given thing for the individual, as something of which the individual is quite consciously and clearly aware and is able to describe. In such an instance situatedness could be interpreted as "knowing the context", which paradoxically is something of an inverted claim of omnipotence. "To know the context" could then be read as an assertion that implies having knowledge about what the actual real (in) context is, at the same time as being certain as to how context has affected one's premises for action.

The notion, I find, has relevance to the usage of the terminology of being inside, or having an inside perspective. Researchers working within the STS field are, according to some technoscience researchers, considered to be located outside of their area of research, that is, outside the technology-oriented areas in society.[47]

This poses a problem of distance and closeness, which is closely tied to what it means to be in a practice and doing research. To some extent I find that making such an assertion of inside/outside runs somewhat counter to the concept of "partial perspective", or the partiality of matter, which Haraway discusses, in that it harbours some latent notion of knowing what the real issues are simply by claiming to be (on the) "inside". Arguing for the fact that being inside ultimately is different from seeing from an outside view, indicates that this closeness enables one to see "more" and "other", and in a sense, clearer.

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46 Regarding situated knowledges see, Haraway: 1991 chapter 9. For a discussion of semiotic-material practices, see, for instance, Haraway: 1997, chapter 6, "Race. Universal Donors in a Vampire Culture: It´s All in the Family. Biological Kinship Categories in the Twentieth-Century United States", p. 213-265.

47 I briefly touched upon some of the research done within the STS field in the theoretical foundation above. Trojer emphasizes the importance of being inside of, or having an inside perspective. Gender research done on technology-related areas of research is thus seen as disparate from, or other than gender research done *within* technology-related areas of research. It is also where the dividing line between STS research and technoscience research seems to be drawn, see Trojer: 2002 especially p. 6 and p. 12-13. For a similar discussion regarding researcher Bruno Latour and what kind of practices and understandings science studies creates and recreates, see Haraway: 1997, chapter 1, p. 33-39.

The prolongation of this argument could be that a more critical perspective or understanding would be neither advisable nor reasonable from within, because from within one can see the real complexity of things. If this was argued, it would imply that it is only from within that one can make relevant and valuable claims about the inside and its practice which harbours change.

This could be related to the notion of what the questions why and how imply. While how might be related to the notion of a more affirmative position from inside, why tends to be seen as the oppositional and more critical inquiry from without. Yet, the way I understand the feminist technoscience stance, accountability in research and knowledge production includes asking both of these questions with the same amount of attentiveness. Being "inside" does not exclusively account for situatedness. Instead I would think that all these research positions are privileged perspectives done from within an epistemological understanding of "situated knowledges".

Haraway contends that a feminist technoscience approach should work from within, from being inside what she calls "the belly of the beast".[48] As a metaphor I find it to imply a sort of subversive disgust or antagonistic position when it comes to matters of being and doing research. More important, however, is the closely connected argument that it is no longer possible or productive in matters of being and in doing research to adopt a view where technology is either a positive or a negative societal phenomenon. What is implied is that "we" cannot afford to be either/or.

This argumentation could be read as leaving "us" with little choice. If technology is no longer a matter of choice, if very little or no room exists for change, technology becomes a matter of acceptance. Accepting technology on the basis that it exists could then become a pretext for using it. Change, on the other hand, seems to occur when there is questioning and critical inquiry, and so this is where the issues of accountability come to matter:

> What we need is a more serious and engaged stance and participation in the actual production of technology. Standing on the outside is not an alternative; instead we must position ourselves 'in the belly of the beast' (Haraway 1997). Being involved in creation and practice presupposes knowledges, engagement, a critical way of relating, and also imagination, open enquiry and taking risks. Technology does not have any intrinsically given direction; rather the direction developments take is decided through negotiations and in different constellations where human and non-human actors interact. Daring to think beyond the given framework – being innovative and accepting responsibility in an undefined, non-standardised way requires an entirely different view of technology and its role and position in our everyday lives.[49]

To summarize this chapter, accountability in doing feminist technoscience research for me becomes a way to try to avoid losing sight of political and structural power relations

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48 See further Haraway: 1997. Also the article by Elisabeth Gulbrandsen, Lena Trojer & Pirjo Elovaara (2007), "Processes of Cooperation in Innovation Systems - feminist technoscience studies as a resource for development and learning", in *International Journal of Feminist Technoscience,* 2007:05, Open Peer Review Journal ISSN 1654-679 URL: http://feministtechnoscience.se/articles/gulbrandsen_trojer_elovaara.pdf, accessed 2010-06-09.

49 Gulbrandsen, Trojer & Elovaara: 2007, see p. 24 for this paragraph (97).

that affect people in their daily lives. It also becomes a way to try to avoid reinforcing visualizations which produce the idea that scientific inquiry should be undertaken without any consideration to its potential societal consequences.

To argue for and practice situated knowledge is one method which allows for interpretations based on knowledge of the world, the specific context and the material in question, without regarding them as all self-referential. Situated knowledge thus includes an understanding of the term context that does not make interpretations appear only as deeply rooted in physical surroundings - so that the room becomes the literal context where knowledge is made - but also that those understandings and interpretations of the world rely on text.[50]

From such an understanding of situatedness it could be possible to practice that what follows with text, is not the text, although it is a part of it.[51] This could make the dualism between theory and practice somewhat nuanced, inasmuch as practice does not have the preferential right to claim or signify the real and the undoubtedly tangible.

Material

The material for this licentiate thesis consists of the texts around which the three essays revolve and discuss. In this chapter I will give a brief background to why I have selected the texts and on what basis I find them relevant to my objective and question. This discussion primarily aims at the content in and texts for essays I and III, since the background to the discussion in essay II is part of the issues put forward in the chapter "Theoretical Foundation" above.

As I argued initially in "Objective and Question", the three essays revolve around the epistemological questions related to if and how it is possible to gain and attain knowledge, and how its value might be ascertained in knowledge production. I focus on Jean Baudrillard's writing and how it can be related to the writings of Donna Haraway, from the understanding that they both work within and against a poststructuralist understanding of language and reality.

Selection of Texts

In Donna Haraway's now canonical text "A Cyborg Manifesto: Science, Technology, and Socialist-Feminist in the Late Twentieth Century", she offers the reader a taxonomy of contemporary scientific and technological transitions, called the informatics of domination, where the first duality is "Representation – Simulation".[52] This intrigued

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50 I would argue that this is part of what Haraway terms "semiotic-material practices". Text is another term for language, symbolic use or signification. See further in Haraway: 1997.

51 See the chapter "Vad är en författare?", ["What is an author?"], in Michel Foucault (2008 (1994)), *Diskursernas kamp, [The struggle of discourses]*, selected texts by Thomas Götselius & Ulf Olsson, Brutus Östlings Förlag Symposion: Stockholm & Stehag.

52 Haraway: 1991, chapter 8, p. 161. Haraway must have known of Baudrillard and his work,

me, because to my knowledge Haraway has never explicitly referred to Jean Baudrillard's discussions on simulacra and simulation, or debated any of his work at length in her own writing.[53] This made me curious about "the French", and about Baudrillard.

The writings of Baudrillard have been accused of confirming gendered ideology and gendered structuring of the world to some extent by reinforcing and reducing the category "women" to, for instance, the term "seduction".[54] Victoria Grace, a scholar in Feminist Studies, makes quite a bold statement about these types of accusations in her rigorous work on Baudrillard, by counteracting the accusations with some influential contemporary work done by feminist and gender researchers. Rosi Braidotti, for instance, is put to the test and found more or less guilty of cementing stereotyped values about women and men.[55]

What appears to be the most important issue here is to acknowledge the difficulty in speaking about a matter using a certain terminology, and with that terminology try to point to difficulties or classificatory aspects without in the end reaffirming the terms used as legitimate, as real or as tangible.

I do not think that Baudrillard in any way intended to reaffirm that all women are seduction, but rather that women more generally are thought to be so, and that the term "women" still connotes or signifies this. Reading Baudrillard in terms as though he means to prove or visualize the real as it is, in this case women, I find, is a gross misunderstanding. It seems to me that assertions of the sort *as it is*, are exactly what Baudrillard tried to question and problematize throughout his writing and in his work.

In the final chapter of *Baudrillard's Challenge*, Grace instead discusses how the work of Donna Haraway, especially the figure of the cyborg, seems affiliated with a more poststructuralist and situated view of the world, and thus is linked to Baudrillard's work.[56] The cyborg is relevant partly because it is a figuration which tries to signify a transgression of the hierarchical dualities that structure western thought. According to Haraway the cyborg is a way to think about the boundary breakdowns she finds in (techno)scientific practice and research in contemporary society.[57]

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since Baudrillard's *Simulations* from 1983 is listed in the bibliography.

53 It intrigued me more since in Judith Butler's work I had found reference to "French Theory" as something of an American construction, as if French philosophy was part of a strain of work that did not pertain to an American or Anglo-Saxon audience. See Judith Butler (1999 (1990)), *Gender Trouble. Feminism and the Subversion of Identity,* Routledge: New York & London, p. x in "Preface 1999". Victoria Grace (2000), *Baudrillard's Challenge. A feminist reading*, Routledge: London & New York, recognizes Haraway's list and the usage of the term "simulation", in chapter 6, "Feminism and the Power of Dissolution", p. 189.

54 See further, for instance, Jean Baudrillard (1990 (1979)) *Seduction*, translated by Brian Singer, St Martin's Press: New York.

55 See Grace: 2000, p. 54-60, for the discussion on Rosi Braidotti's terminology and epistemology in chapter 2 "The Fictions of Identity, Power, and Desire", p. 36-76.

56 Grace: 2000 chapter 6, "Feminism and the Power of Dissolution", p. 172-192. For the discussion on Haraway see the subchapter "Dissolution of Power and Meaning in the Illusion of the Real".

57 Haraway: 1991, chapter 8.

Reading Baudrillard, I found him and Haraway to be similar in thought, to the extent that they both thoroughly criticize the positivist agenda of the real as something decipherable and objectively true. Both Baudrillard and Haraway have discussed and problematized some similar issues, for instance, the proliferation of diverse technologies and its consequences on human life, the proliferation of visualization techniques and the growing instability of the scientific fact and the claims for an unbiased truth.

However, I believe there are differences between them when it comes to potential strategies for earthly survival, thus strategies for coping with being and that which is perceived as the real. These differences, and I say this with some hesitation, seems to stem from their different academic backgrounds. For Haraway the issue of science and research is related to positivistic science and technology, whereas for Baudrillard the issue pertains mainly to the humanities and linguistics.[58]

To some extent, Haraway - with her rejection of relativism and insistence on situated knowledges - may be thought to engage in a scientific discussion in the natural sciences and technology community in order to try to come up with a practicable or pragmatic alternative to universal claims. From this point of view Haraway continues to believe in the idea of science as a crucial and real matter for society, also "after" positivism. This was not as I understand it the incentive for Baudrillard, or for his writing.

With insisting on situatedness, Haraway could be said to try to nail down or pinpoint researchers to a specific location or position from where it is possible to speak, the position from where they speak. Haraway then opts for a type of reversal in speech in research, from a (non-)position of nowhere to a position of somewhere in particular.[59]

Baudrillard on the other hand I find is very far from and hesitant about making conclusions as to from what place it would be possible to say something meaningful about the world and the real. I find Baudrillard to mean that there is no possibility of a project where one can find a position from where it is possible to speak and know the real. It is not possible from any presumed real position to describe the real, or to actually know what the real is. It tends to slip away, to volatilize.[60]

This has much to do I think with Baudrillard's understanding of language and the illusion it holds, which always exists and that we cannot get rid of. To try to question the certainty with which we assume language's realness and objectiveness, in relation to that which we call reality, is then crucial. From such a perspective, language is played with its own illusions, and the realness of the world is challenged.[61]

These issues are part of why I have chosen to write about Baudrillard in essay I and why I find his work on ontological and epistemological questions to be relevant to the work of Donna Haraway and to a feminist technoscience stance. In connection with these

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58 I would like to thank Maud Färnström for pointing this out to me.

59 What Sharon Traweek has called "the culture of no culture", quote in Trojer: 2002 p. 56.

60 See, for instance, Baudrillard (1994, (1981)), *Simulacra and Simulation*, translated by Sheila Faria Glaser, The University of Michigan Press: Ann Arbor Ml, and Baudrillard: 1988.

61 It is crucial here to point out that I do not think that Baudrillard intended either to formulate or to formalize that there is nothing material, physical or carnal that is concrete.

issues, which I would say are part of a larger poststructuralist understanding of the world, the notion of representation seems vital to knowledge production. Also it connects with the initial "representation - simulation" stipulation here made by Haraway.

Such a stipulation, where simulation has taken over or potentially eliminated representation, I find is a rather radical one. Some of the questions it brings about I then try to discuss in essay I and in essay III. My discussion on meaninglessness in essay I could be viewed as a prolongation of the arguments made here about Baudrillard and his writing. The notion of meaninglessness partly resonates with the "representation - simulation" stipulation in that it questions how we use language and how we use it to make representations interpretable and understandable, in this case images.

The notion of meaninglessness, around which the first essay revolves, should by no means be interpreted or taken as a way for Baudrillard to argue unreservedly that anything goes and that all activities ultimately - however gruesome they might be - could be legitimated. The argument seems to include the creator or producer as much as the beholder or consumer.

Instead I think the notion of meaninglessness could be read as a critique against how language is taken for granted as describing reality, and how in turn what we perceive as the real is taken for granted. This relates back to the initial discussion here on the use of language and what it could affirm and contest.

My argumentation on transparency and the opaque in essay II partly stems from my understanding of Baudrillardian language and thought-figures. The parallel discussion on the potential use of Haraway's notion of situated knowledges as a reduction of people, for instance, into a particular space, a certain gender or sexual orientation, is also to some extent a reflection of my understanding of Baudrillard's writing. The reduction refers to how claims of "situatedness" could be interpreted as making claims on what the real is, by pointing to the place from where it is possible to speak and where certain things become visible. This could in turn be understood as a move towards transparency, a notion that seems part of a more objectivistic epistemological positioning.

Acknowledging the opaque as an inevitable part of thinking and of knowing about the world is thus relevant to Haraway's thoughts on situatedness and to the notion and practice of "partial perspective". Finally, the issues that I have discussed here form the basis of my discussions in the three essays. The essays are an attempt to bring forward some perspectives on the question of knowledge production which recognizes the difficulties in gaining, attaining and ascertaining knowledge.

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Part II. Essays

I. Meaninglessness in the Desert of the Real. Arguing for a Form of Meaning and Unpretentious Objects

> If we could accept this meaninglessness of the world, then we could play with forms, appearances and our impulses, without worrying about their ultimate destination.[1]

This essay attempts to give meaninglessness a face in the context of digital visual production in general, and more specifically, in the space where situated unpretentious objects may reside.[2] The notion of meaninglessness, as it is posed by Jean Baudrillard, opens the way for questions concerning the role of "art" and "form" as transformational and interventional possibilities in relation to what he determines to be the ongoing "desertization" of the real.

As possibilities, "art" and "form" then hold a promise that entails a lessening of the expansion and expenditure of the hyperreal. [3] What I am considering in this essay

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1 Jean Baudrillard (2001), *Impossible Exchange*, translated by Chris Turner, Verso: London, p. 127-8.

2 This essay emanates from a presentation held at the interdisciplinary conference *The Succession of Simulacra: The Legacy of Jean Baudrillard* (1929-2007), held on 18-19 April 2008, at the University of California, Santa Barbara, CA, USA.

3 The term "hyperreal", I believe, should not be seen as the oppositional force to the "real", where it is thought that the materiality of things and thoughts circulate. Rather, it seems to me that the "hyperreal" signifies a shift in *the perception* of what constitutes the "real". What is coined the real is therefore not more objectively real than the hyperreal. Baudrillard states that what is perceived as reality, and how we grapple with it, is a construct made in and through the use of language. As such, a sign has no real referent, no dedicated real signified to cling to. The poststructuralist claim in the hyperreal mode is set to only refer to other signifiers, and as I understand it, making a referent for the sign redundant. William Pawlett makes a thorough overview of Baudrillard's orders of simulacra in the chapter "Simulation and the End of the Social", in Pawlett (2007), *Jean Baudrillard, Against Banality*, Routledge: London & New York, p. 70-90.

is how such an undertaking of (a) meaninglessness (end), by means of playing with forms, could be made possible.

In the light of meaninglessness and forms as general phenomena, it seems as though the (re)making and the proliferation of images is never ending. Behind the ongoing proliferation of images questions secretly lurk about who asserts the qualities needed for both meaning and meaninglessness to take place.

Such questions relate to the latent probability of neutralizing and counteracting the purpose of meaninglessness through its advocation, as it then tends to configure into what could be termed "strategic meaninglessness".[4] Consequently, the notion of meaninglessness lays open an epistemological gap in relation to the concept of representation as being part of a meaningful truth, which could lead to new ways of understanding what constitute objects of art.

Opening with Meaning

There seem to be many disparate ways of hoping to find and to figure out "Baudrillard". It would be a fairly meaningless statement, perhaps, to say that what one finds is much more than one hopes for, and that this figure "Baudrillard" continues to lurk behind the pages and the words - veiled in a way, but never missing.

I am hoping for fragments of understanding of "Baudrillard", and of his thought-figures, in writing this short essay on meaninglessness. The conference session for which this paper was written initially was entitled "Meaning within the Vacuum". The imagery and figuration of a vacuum made me at that time a bit hesitant, and I still quietly wonder whether anything within a nothing is possible.

This is certainly a much larger issue than what I will try to narrate here by putting focus on the implications of the term meaninglessness as used by Baudrillard. I attempt to do this by circling around two central subject matters that I find to be deeply interwoven with the notion of meaninglessness as Baudrillard suggests, namely the matter concerning *what constitutes art and form*, and the matter of *how it is possible to indulge in (its) content.*

In the following, I will bring forward and discuss some arguments based on these matters related to art, form and content and in that try to work around and with the concept of meaninglessness. This way of doing could quite ruthlessly be translated into very basic questions informing my discussion on Baudrillardian terminology. These questions are: *"What is the matter?"*, *"Who is the bystander/observer?"*, and *"Who is the judge of all this meaning?"*. To me, these questions seem pivotal for any kind of confrontation with how diverse objects in general are categorized and classified, and how

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4 Genosko terms the endeavour of dismantling (fragments of) hyperreality a "breakthrough" and a "break-down". See Gary Genosko (1999), *McLuhan and Baudrillard, The masters of implosion*, Routledge: London & New York, page 90. Also Victoria Grace (2000), *Baudrillard's Challenge. A feminist reading*, Routledge: London & New York. Grace argue for Baudrillard's statements concerning possible ways of dismantling the hyperreal through the use of poetics, see chapter six, and the section entitled "The Enjoyment of Poetics and the Poetics of Enjoyment", pages 172-5.

some of them become (re)constructed as objects of art. It is one way of putting forward the understanding of how specific contexts and situated practices seem to legitimize that which becomes known as art, both in terms of it as immaterial sign value and in terms of it as materialized matter.[5]

For the sake of appearances, I have quite ruthlessly again re-inserted the three questions in sequence into the following subtitles, "The Face of Indifference", "The Meaning of Keeping Face", and lastly a summary called "Facing Meaning, or Strategic Meaninglessness". Finally, the questions posed above might touch upon the possibility for another meaning and meaningfulness, beyond what could seem to be the vacuum of things.

The Face of Indifference

Meaninglessness is an arbitrary word. It willingly deprives something of worthy content, and in doing so makes a somewhat hazy recommendation as to what is truly and rightfully meaningful. This is perhaps nothing new, it appears as a word most tainted, a rather blunt insult to the person, act or object that finds itself appropriated to and encapsulated by the term.

But who can make such an assertion with certainty? An image (image I) might be useful in this respect, adding some uncertainty in relation to the labelling of persons, acts and objects as distinctively either meaningless or meaningful.

image I.

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5 In relation to art history as a (scientific) field, diverse feminist approaches have shown that its "objective" narration (legitimized through the usage of a more positivist epistemological framework) is filled with matter which is most gender biased. Whitney Chadwick's research and writing is one example of such a feminist approach to art history. See Chadwick (2002, 3th ed.), *Women, Art and Society,* Thames & Hudson: London.

Being as it may a rather poor digital image of a reproduction print that I have in my home, the image seems to depict a nun gazing out of a window. Perhaps it is the window of her cell, and what she is looking at escapes the eye of the spectator. What seems rather apparent is that it looks as though she is in deep longing for something. She is in a sense elsewhere. And what she presumably longs for is unattainable to and beyond knowing for the spectator.

I will come back to her below, when touching upon how constructions of form and content could be seen as deeply situated practices. Accordingly, what is regarded as meaningless(ness) could turn out to be a rather ambiguous play with words.[6]

When it comes to the more general notion of meaninglessness, Baudrillard seems to accept its negative signification and connotations, using it as a prerequisite for his own means in trying to turn the signification around. As quoted above, Baudrillard states that:

> "If we could accept this meaninglessness of the world, then we could play with forms, appearances and our impulses, without worrying about their ultimate destination."[7]

An attempt to turn signification around imposes some questions. If meaninglessness becomes a state where an implicitly more blissful order or disorder of things would be possible, what would constitute its reconstituting other? That is, what has meaning to do with all of this? How would it be possible to grapple with a meaninglessness initiated and facilitated by forms and appearances? And what kind of forms would be used, seen as significant in signifying meaninglessness?

Assigning and appropriating this value to people, acts or objects in order to enable or to make it easy for meaninglessness to take place, makes the question of "dead-ends" value laden. What I am asking is by what means a meaningless state of being is made possible.

If the purpose of insisting on meaninglessness is to make plausible another way of being and knowing in the world, this might quite possibly lead me to believe that the ontological and epistemological implications are of central significance. Thus, as a precondition for the questions posed above there is a need to engage in what it is that meaninglessness is supposed to be a "radical other" to. And as I interpret Baudrillard, it would be our present state of being, which he signifies and describes as "the desert of the real".[8]

Belonging to this "desert" is an immense willingness and capacity to make subjects, acts and objects visible and transparent through the intensive glare of information.

6 The term "situated knowledge" belongs to the American researcher Donna Haraway. It refers to the epistemological effects of a shift in the way science is perceived and carried out. Instead of practicing objectivity as an indisputable fact and referent to the world, Haraway, as I interpret it, acknowledges the deep impact of the context in which knowledge is being produced. See Haraway (1991), *Simians, Cyborgs and Women*, Routledge: London & New York, particularly chapter 9.

7 Baudrillard: 2001, p. 127-8.

8 The quote is taken from Jean Baudrillard (1994, (1981)), *Simulacra and Simulation*, translated by Sheila Glaser, The University of Michigan Press: Ann Arbor MI, page 1.

When targeting and (re)making this kind of visibility, science and its practices seems to become immensely helpful, not least through the usage of its own construction, the scientific fact. In a way, science becomes a legitimizing body of visibility.[9]

According to Baudrillard, this is partly due to the help of the technological hand. Information and its increasing need for storage are made possible through the technological proliferation and its advancements. In this respect, technological solutions and information become each other's wheel of fortune. In the midst of these two grand converging practices of science and technology the notion of meaning seems to reside. It lay as a sort of generating factor or as a prerequisite in the urge for deciphering matter, and in the extraction of its presumed content.[10] Meaning-making seems to subscribe to a faith in a reality out there ready to be brought in and formulated. Yet, meaning has no "finality", as Baudrillard puts it, because there exists no actual outer absolute reference either to confirm or to condemn the (re)construction of meaning.

The lack of reference, the void of real meaning is what secretly lurks behind meaning-making, when trying to make sense of the world, by forcing it to mean and matter through the advocation of meaning.[11] However, this is also where the Baudrillardian notion of meaninglessness comes in, in its attempt to dismantle and counteract the figuration that everything is more or less directly perceivable and intelligible to us. According to Baudrillard, the gained excess of knowledge and information also creates what it most of all despises, its polar opposite, which could be thought of as a grand "vacuum". The outcome of the excess of information is "the disappearance of information in information".[12]

If this is the case, that the urge for information creates the destruction of itself, why would anyone be interested in speeding the process up by advocating meaninglessness? Why not just let disappearance have its own way?

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9 Baudrillard: 1994. Donna Haraway's work also makes tangible the constitutive power between dualities that make up the material and the immaterial, and how these dualities stem from a deeply gendered practice. See, for instance, Haraway (1997), *Modest_Witness@Second_Millenium. FemaleMan©_Meets_OncoMouse™*, Routledge: New York & London.

10 See, for instance, the chapters "The Precession of Simulacra", "History: A Retro Scenario" and "On Nihilism" in Baudrillard: 1994.

11 I interpret Baudrillard's usage of the notion of meaninglessness as a way of reaching to and being in "symbolic exchange". This would mean that most parts of Baudrillard's work on form and meaning(lessness) include or allude to "symbolic exchange". (Possibly, I would argue that all of Baudrillard's work is done in relation to the notion of 'symbolic exchange'.) See, for example, Baudrillard: 2001 and Baudrillard (1998 (1997)), *Paroxysm. Interviews with Philippe Petit*, Verso: London & New York. In this context Karen Barad (2003), "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter" in *Signs: Journal of Women in Culture and Society,* 28:2003:3, offers a somewhat different form for questions on materiality and making matter and meaning. Donna Haraway's critique of the positivist epistemology is quite similar to Baudrillard's argumentation on meaning-making. See, for instance, Haraway: 1991. Both Baudrillard and Haraway evoke the non-referent when the making of meaning tends to be thought of as an objective and true enterprise. How they deal with the consequences of this approach somewhat differs, however.

12 The thoughts of Jean Baudrillard and the French philosopher Paul Virilio seem to meet here. See particularly Paul Virilio (1996 (1989)), *Försvinnandets estetik, [The aesthetics of disappearance]*, translated by Peter Handberg, Bokförlaget Korpen: Uddevalla.

The present "desert of the real" or "hyperreal" state of being, presumed by Baudrillard, where meaning in all kinds of fabrics of life seems created and endorsed by means of science and information, is of a double-edged character. As I interpret Baudrillard, the "hyperreal" is a state which is highly unwanted. Yet, it also harbours the (un)fortunate quality of being the very prerequisite for the occurrence of an oppositional space. Such a potentially different space could be seen as both a part of and a result of what Baudrillard calls "radical thought", "symbolic exchange" or, for that matter, "meaninglessness".

As such, hyperreality seems to enable the radical. Something that could be seen as, I quote Baudrillard here, "the final accomplishment of reality".[13] The question of whether a hyperreal condition can be thought of as a continuum genuinely lacking potential for anything "radical", is to some extent then answered. It seems as though when everything has spiralled out of control, the time to indulge in acts of meaninglessness has come.

How can the understanding of the notion of meaninglessness subsequently become transfigured so as to concern an indulgence in much smaller matters of materiality? Is it possible to bring meaninglessness to a level of concreteness where it becomes a way of doing? But before going into these matters, I believe it is time for the nun.

Is she perhaps the face of indifference, in a state where meaning and meaningfulness is missing? Or could it rather be an account of unattended indifference, which belongs to its spatial situation and context, and implies that an act of meaninglessness in a way is already set in motion? The act presumably engaged in by the nun might just be an (un)directed form of opposition, a "radical singularity" in meaninglessness.[14]

The argument might also hold some relevance to the notion of the supposed general indifference of the "masses", a notion neither particularly new nor strikingly controversial, yet apparently persistent in thought. I believe some of its persistence is related to the question of art, and its intention and allocation. What I am referring to here is to what extent the narrative of what art is tends to entail a more or less implicit fear of what it might do to art and aesthetics if it was "properly understood" by many more than many less.

For instance, indifference seems to be an implicit part of Theodor Adorno's configuration of "the masses", in their presumed relation to aesthetics in general. Walter Benjamin raises these issues somewhat differently, although to me the question of the dawning (mass) proliferation of images touches upon the notion of *the image becoming*

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13 Quote in Baudrillard: 2001, p.121. See Pawlett: 2007, chapter "Symbolic Exchange and Death". Pawlett preludes by quoting Baudrillard: "(E)verything which is symbolically exchanged constitutes a mortal danger for the dominant order". From Baudrillard (1993, (1976)), *Symbolic Exchange and Death*, translated by Iain Hamilton Grant, Sage: London, Thousand Oaks CA & New Delhi, p. 188, note 7.

14 Baudrillard's "singularity" seems to me to be both a means and an end to "symbolic exchange". It is a place/space/mind filled with things, acts and thoughts not clearly decipherable, which do not lend themselves to instant readability. Instead they are acts of curiousness. See Baudrillard: 2001, especially chapters "Beyond Artificial Intelligence: Radicality of Thought" and "Living Coin: Singularity of the Phantasm".

"the mass".[15] Instead of disbelieving the presumed indifference, Baudrillard counteracts the signification, writing that "indifference is an atonal form of challenge".[16]

Perhaps all is well in a world of meaninglessness. But why is it that a presumed concretization of the notion of meaninglessness seems to be without the messy context of its making? Does it not also have forces around itself, which try to forge it into something that it is, or perhaps should not be or become?

In the following chapter I will make two attempts to contextualize what meaninglessness could constitute in relation to form. Assistance will be in the form of one object more conventionally perceived as art, and another quite firmly so I believe, regarded as a non-art object.

The Meaning of Keeping Face

If we go back to the initial quote by Baudrillard, what constitutes form seems pivotal both for the initiation and the facilitation of meaninglessness. Baudrillard states in numerous writings that art and language could act as examples of these forms. Art and language have the potential to open up for illusion, form being "the illusion of the world and the possibility to invent this *other scene*".[17]

Specifically on language Baudrillard writes that "language, while belonging to the domain of illusion, allows us to play with that illusion".[18] Even with such a possibility at hand, art is a form which has become increasingly pretentious for Baudrillard, and he writes of this in his work *Conspiracy of Art*. Contemporary art attempts to encapsulate and devour all of reality, as it aspires to be reality.[19]

This type of argument, proposing the loss of art as such, however, seems to me to be somewhat loosely problematized. It fails to present the difference between what works of art did or were supposed to do in the past, and how this is different from what works of art *try to do* or *do* today.[20]

The way I understand Baudrillard's take on this is rather through the perspective of function, i.e. the way contemporary art in a way is obliged to (have a) function.

15 See Theodor W. Adorno (2002, (1981)), *The Culture Industry*, Routledge: London & New York, and Walter Benjamin (1936), "Konstverket i den tekniska reproduktionsåldern", ["The work of art in the age of mechanical reproduction"], in John Burrill (1987), *Kritisk teori: en introduktion, [Critical theory. An introduction]*, Daidalos: Göteborg.

16 For quote, see page 137 in Gary Coulter (2007), 'Never Travel on an Aeroplane with God ': *the Baudrillard Index — an Obscene Project. International Journal of Baudrillard Studies* (on the internet), URL: www.ubishops.ca/baudrillardstudies.

17 My italics. Quote from an interview with Baudrillard, in Baudrillard (2005), *Conspiracy of Art*, Semiotext(e): New York & Los Angeles, p. 57f in the chapter entitled "Art between Utopia and Anticipation".

18 Baudrillard: 1998, p. 144.

19 See further in Baudrillard: 2005.

20 Paul Virilio, for instance, argues against what he terms the contemporary "pitiless art". See Paul Virilio (2003) (2000)), *Art and Fear*, Continuum: London & New York.

Having functionality implies a functioning towards something else, something real in a reality. Functionality, in this sense, goes hand in hand with the idea of representation as a mirroring of the world. One way of having function is by presuming to say "radical" things about the present time. Although, what startles me is that having such a function of radicality in relation to contemporary time, through the use of art, might not be that different from what some art did one, two or three hundred years ago. To my knowledge this is not something that is discussed more at length.

However, I believe that what Baudrillard intends to argue for is that truly subversive art does not engage in proclaiming the world as it is, rather it invents another one, an "other scene".[21] And as such, being of this "otherness", it might not be immediately distinguishable and readable to us. Perhaps it is only faintly perceptible to us, and for that reason it could be disregarded and seen as meaningless.

In relation to Baudrillard's description of contemporary art, images still take up a vast part of "the art world", even though it seems as if they have increasingly lost their potential for any form of radicality. This might seem paradoxical considering the potential given radicality by the proliferation of images through the usage of a number of "new" mediums. Instead the escalating number of circulating images seems to tell less and less.[22]

Even so, the image below (image II) might serve as a reminder of the rather apparent urge for imagery, and the feeling of not getting enough of images. The photograph is taken at the very crowded entrance hall of the Louvre in Paris, on a day in late December. To take the Louvre as an initial example here might narrow the understanding of images and art in a way that Baudrillard did not intend to. Even though the Louvre in itself is a narrowing narrator of what constitutes art and images of art, it is however also a sort of appropriated space for legitimized gazing.

How gazing relates to my attempt to contextualize meaninglessness will be the focus of discussion a bit further down in this chapter.

image II.

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21 Baudrillard: 2005, p. 57f.

22 See, for instance, Baudrillard: 2005. This could also relate to what Paul Virilio is arguing, namely the disappearance of art in art. See the first chapter in Virilio: 2003.

The first example is an object which I have assigned to the sphere of art. It is its relation to or potential for radicality and meaninglessness, in the context of being partly a digital visual production, that will be my focus here. Keeping in mind Baudrillard's words on media as "technical objects" that impose "new modes of relation and perception", the question of the possibility to exert radical modes of relations with respect to the digitally made visual object seems important.[23]

If we are not already completely deserted, completely immersed in "hyperreality", these types of digitally produced images should hold some potential for radical thought and for the invention of an "other scene".[24]

The object of art I am referring to is a piece made by the Finnish artist Ilkka Halso. The image below (image III) is entitled "Kitka-river" and is part of Halso's pamphlet *Museum of Nature* (2004).[25] On Halso's webpage one can read that the pieces in *Museum of Nature* were created through combining photography with computer-generated 3D models.[26]

The way I interpret Halso's work, reading the pamphlet's prelude and marvelling at the pieces, is that it envisions a dystopian future scenario where "nature" has become a (last) venue for "musealisation". In this "musealisation" lies the disturbing thought that "nature", in order to be left outside the domain of total exploitation has to be restored into, and resurrected as, a cultural commodity. "Nature" has to in a way become subsumed and put under the surveillance of "culture".

Even though the difficulty of fixing the point where "culture" ends and "nature" starts is a highly problematic endeavour in any given space and time, I think Halso's pieces are extraordinary, and in way curiosities. These pieces envision a horrifying and daunting potentially not-so-far-away future in a, for me, deeply appealing form.

image III.

23 Genosko: 1999, p. 93.

24 Baudrillard: 2005, p. 57ff.

25 Halso's work can be viewed on his webpage, URL http://ilkka.halso.net/. The image was retrieved 2008-03-25.

26 URL http://ilkka.halso.net/, accessed 2008-03-25.

But could Halso's piece go under the epithet meaningless, could it constitute an "other scene"? Who gets to assert its radical potential? The question that I am finding increasingly troubling is *who* qualifies as a knowing subject here.

I don't think there is any need for an overly affirmatively approach such as "iconoclashing", put on display by Bruno Latour.[27] To distinguish neither between medium, nor between the frequency of form, does not seem to make any object or image of art (or of non-art) easier to understand. Rather, this type of argument of "images clashing" that Latour raises, seem to be a more postmodern way of distorting or disregarding the context and the "situatedness" in which an object of art is being created.[28] An approach like Latour's, accordingly perhaps, also seems to put a relativistic veil over the presumed observing and knowing subject when viewing images of art, and of non-art.

To leave it all up to the search for the presumed contextual space of the creator could perhaps initiate more research which tries to find the "true and objective" visual reference to art or images created.[29] On the other hand, to refer the potential for radicality in a work of art primarily to the statements made by its creator could seem overly easy and predictable. It also tends to leave the observer completely blank, since whatever the observer's gaze might find, it will be taken as a subordinated act of looking.[30]

Yet, when unthreading the mysteries of an image and the image's potential for meaninglessness, thus asserting what constitutes a "breakdown" and a "breakthrough" in signification, it is not merely a question of *who*.[31] It is also a question of *how*.

The way I understand Baudrillard's terminology, what might be problematic here is if a "breakdown" or a "breakthrough" aspires to deconstruct meaning.[32] What if these matters were futile, in terms of being already (pre)code-incorporated?

Another action might be to partake or remain in the position where one simply is able to "decode the message".[33] Decoding seems awfully much like a one-coded story.

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27 For the article by Bruno Latour (2002), "What Is Iconoclash? Or Is There a World Beyond the Image Wars?", see URL: www.bruno-latour.fr/articles/article/084.html, accessed 2008-04.

28 For the initial discussion of the term "situated knowledge" and its possible implications on science and research, see Haraway: 1991 chapter 9.

29 The Swedish sociologist Johan Asplund writes about the art historian's misconstruing with regard to the interrelating and referencing of works of art. This in turn has deep implications for the comprehension of artistic work. See the chapter "Hur sjuk var Hill?", ["How ill was Hill?"], in Johan Asplund (2006), *Munnens socialiet och andra essäer, [The sociality of the mouth and other essays]*, Bokförlaget Korpen: Göteborg, p.15-39.

30 In part, Teresa de Lauretis argues for this type of approach which puts focus on the intentions of the creator in order to understand and narrate more fully any type of work of art. As I see it, this is primarily done to raise the central question of responsibility for images created. This type of awareness does not finally exclude other interpretations. See Teresa de Lauretis (1987), *Technologies of Gender. Essays on Theory, Film and Fiction*, The Macmillan Press: Houndmills, Basingstoke, Hampshire, & London.

31 For a discussion on what the terms "breakthrough" and "breakdown" could imply in relation to Baudrillard, see Genosko: 1999, p. 90f.

32 For a discussion on the positioning of oneself as (n)either a deconstructivist (n)or a poststructuralist, see Tilottama Rajan (2002), *Deconstruction and the Remainders of Phenomenology*, Stanford University Press: Stanford CA.

33 The notion of encoding/decoding the message still seems present when it comes to understand-

Since its foundation seems to rest on the premise of the world as it is, representation then merely acts as sort of input and output apparatus.

Is it possible instead to talk about a contextualized understanding, and a type of desert-deciphering when trying to make objects, acts or people a bit more meaningless? An act of deciphering should not imply, or result in, a one-way decoding where the question of preferential interpretation is not also taken into consideration.

One way of revising the "who" and "how" might be to stray away for a moment from "the pretentiousness of art", when signifying some acts as "breakdown" and "breakthrough".[34] Maybe we do not always need specifically (pre)categorised and (pre)constructed objects, such as objects of art, to enable for or create an "other scene" of illusion and play of the mind?

I wonder if it might not be the case to also, or instead, turn to somewhat more un-pretentious objects. The photograph below (image IV) might work in this respect, as it depicts an object that I firmly believe is perceived as being part of the category non-art.

image IV.

It is a souvenir of Paris, a plastic dome with models of iconic buildings that rests on my desk at home, sometimes reminding me of Baudrillard and his work on simulacra and simulation. Even so, I still gaze at "the Eiffel Tower" and marvel at the small metallic pieces swirling around it.

To others, it is quite possibly perceived as just another utterly meaningless object. But as a contextualized object, situated in my thoughts and materialized on my desk, it is something quite other. Could it therefore be argued that the dome is filled with an-other type of meaning, is it in the realm of the meaningless as opposed to meaningful?

Perhaps there is a danger in proposing that anything could be filled with a noble content, may it be spoken of as either meaningful or meaningless. The question that still lingers on is what actually *constitutes (a) form* which can open up for a potentially

ing diverse re-presentations. For initiating work of this type, see Stuart Hall's chapter "Encode/Decode", in Stuart Hall, Dorothy Hobson, Andrew Lowe & Paul Willis (eds.) (1980), *Culture, Media, Language*, Routledge: London & New York.

34 Baudrillard makes the statement of contemporary art becoming increasingly pretentious in Baudrillard: 2005, page 53. In relation to this, Grace: 2000, p. 172f, refers to the poetic as trans-ference, and as a form of reversion-mode.

radical and meaningless understanding of acts, objects and persons. Trying to (im)pose a question of this kind could very well be a rather crude way of forcing through an answer to something that it might be a point not having an answer to.

It reaches a circular movement, which I think Baudrillard did not intend, since circular statements need only to refer to themselves for justification. Rather, the radical potential might rest in the act of "singularity", and as such it seems to fail to be directly decipherable to us.[35]

Facing Meaning or "Strategic Meaninglessness"

It is time to sum up and possibly face meaning. It could strike one as constituting a meaningful activity, arguing for meaninglessness. The consequence of such activities, what seems to be somewhat paradoxical, is that the prolongation of it could mean and lead to possible acts of "strategic meaninglessness".

By advocating or striving for meaninglessness through and by forms such as language or art, meaninglessness could all of a sudden become another meaning, something in a way more meaningful than meaning.

A sort of institutionalizing of the notion of meaninglessness might not at all be the preferred way to go. If meaninglessness holds a sort of quiet ontological remedy, a way of counteracting the hyperreal expansion and expenditure, making it into a strategy would seem the wrong way to go about it. It fails perhaps to grasp the oppositional character of meaninglessness.

Disregarding the possible modes of procedure for meaninglessness to occur, the question of its maintenance still seems important. With this I mean, what if the hyperreal allows for certain outbursts, could it not be that the singularities of radical thought or meaninglessness are included, in an all inclusive system?

Asking about the possibility of living in a perpetual, happier state of meaninglessness might be getting too close to the hazardous fields of theorizing a possible utopia. Even so, attempting a more ephemeral meaninglessness, is it possible to endure its temporality? I end this essay with a final quote by Baudrillard: "I have no illusion, no belief, except in forms – reversibility, seduction or metamorphosis".[36]

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35 Baudrillard: 2001, especially chapters "Beyond Artificial Intelligence: Radicality of Thought" and "Living Coin: Singularity of the Phantasm".

36 Baudrillard: 2005, p.59.

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II. 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.[1]

In writing an essay one should be aware of the implicit danger of the form. This danger is dual, in the sense that it encompasses both the writer and the world in which the writer resides. What characterizes the essay as a form of writing seems to be a lack of feeling for authority, and a seemingly intrinsic suspicion of claims made by allegedly accepted theoretical terminologies and practices.[2]

As a consequence of the predetermined danger of the form, the writer then has to either willingly or unwillingly relinquish herself or himself from the idea that the act of writing is moored to a serene and comfortable place where already made-up words and understandings rest assured. Harbouring such possibly discomforting thoughts about words and understandings, the act of writing could then end up having some

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1 Jenny Diski (2002), *Stranger on a Train. Daydreaming and Smoking around America with Interruptions,* Virago Press: London, p. 2-3.

2 Quote from Engdahl (2003) p. 24, in Johanna Börrefors (2007), *En essä om estetisk efterrättelse, [An essay on aesthetic observance]*, Lund Studies in Sociology of Law, Department of Sociology, Lund University. Essay implies a trying, which I find to be a relief.

unpleasantness directed towards the world(s) that engage in a conforming of words and understandings. Instead of being mediators of praise, both the writer and the written text end up in a space of unruly practice, what I suppose is often called "critique".

I do not 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 can enable the suspicious-minded some peace of mind.

Such peace often seems foregrounded by a devoted adherence to the "meta-level". Since the basis for any meta-level suspiciousness seems to me to lie in the belief of some sort of adequacy and accuracy in matters of understanding, I find it necessary to proclaim some of 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 might in itself be a paradox, to emphasize the inconceivable. Even so, I find that it could leave more remainder than giving straight answers to questions would.[3]

The question of giving clear answers might depend on the type of non-, trans-, post-discipline to which you feel yourself answering. Therefore, I draw some security from the form of the essay in its devotion to trying, when in the following I attempt to engage with and within a feminist technoscience debate as initiated and informed by Donna Haraway.

Some of the essays comprised in Haraway's 1991 anthology, especially her writings on the now famous figure of the cyborg and on 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.[4] These texts by Haraway 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.

In the following I will mainly put focus on some 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.[5] The way these large entities of science and society are discussed throughout these theoretical approaches will form the basis of my argumentation on the ambitions for and methodology of *transparency*, and on the underlying irreducibility of the opaque.

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3 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 more positivist ideologies, in their belief that there can be clear, transparent and unquestionable answers and truths in this world. See further in Jean Baudrillard (2001), *Impossible Exchange*, translated by Chris Turner, Verso: London. Also Victoria Grace (2000), *Baudrillard's Challenge. A feminist reading*, Routledge: London & New York, especially chapter 1 for Grace's discussion on Baudrillard's term "symbolic exchange".

4 See Donna Haraway (1991), *Simians, Cyborgs, and Women. The Reinvention of Nature*, Routledge: New York & London.

5 Some aspects of the "Mode 2" prospect will be discussed under the chapter "Function" below.

In this essay there will be something of a wandering towards the question of context, and its seemingly both fleeting and absolute character when it comes to matters of being and of seeing, and particularly matters of research practices and 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 Donna Haraway calls "sign, context and time".[6]

The difficulty and the uneasiness for me lie in how these linkages in some theorizing seem bound to some causal tendencies where context becomes the singular determinant for being and thinking, even when the words are spoken in a more postmodern tone of voice.

Even though the more postmodern tone often finds itself clinging to no grand truth or meta-narrative, presumably being beyond modernity, there seems in part at least to be a quest for another or better, yet perhaps smaller, truth.[7]

The persuasive potential of any kind of truth claims 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 as a historically rather strained relation between form, content and understanding which I find to be somewhat parallel to the discussion on "sign, context and time".[8]

Taken together, this essay is a way for me to feel associated with Jenny Diski's words above, that there could be a risk in thinking that one form only enables one type of content, 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 a modernistic thought thoroughly enforced by the Austrian architect Adolf Loos. In the year

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6 Haraway: 1991, p. 208. I will discuss some of the possible implications of this understanding in the chapter "Ornament".

7 If one should believe Jane Flax and her article from 1992, it does not matter to what modernity (pre-, post-, late-) or field of theoretization you feel yourself connected, the hope for some kind of better, or meta-truth is still present. See further Jane Flax (1992), "The End of Innocence" in Butler & Scott (eds.) (1992), *Feminists Theorize the Political*, Routledge: London, 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. In this sense, Foucault was not it seems a man of modest demands.

8 As an example of this strain the Swedish sociologist Johan Asplund writes about how the art historian's misconstruing in respect to the interrelating and referencing between works of art has deep implications for the comprehension of artistic work and of artists. See further the chapter "Hur sjuk var Hill?", ["How ill was Hill?"], in Johan Asplund (2006), *Munnens socialiet och andra essäer, [The sociality of the mouth and other essays]*, Bokförlaget Korpen: Göteborg, p. 15-39.

1908 he formulated that "the evolution of culture is synonymous with the removal of ornamentation from objects of everyday use".[9]

A truly cultivated society thus moves in the direction towards *pure function* and away from ornamentation. What I find Loos implies when enacting "pure function" is a linkage with the notion of *transparency*. Such a pairing of transparency on one hand, and function on the other seems to act as emptying all possible diversions and deviations of understanding content. What is left is instead a single dominating direction of thought and use, because, as Loos suggests in his text, when form follows function there should be nothing to make one unclear or uncertain about either form or function.[10]

Thus, having no ornament makes an object or a form directly clear to its user. In Loosian lines of thought it appears as the form's intention to work as a specific form, with a specific function, becomes/is immediately recognized by the eye and by its user. There can be no misunderstandings here since there is no residue, either in form or in function, and therefore nothing to keep the potential user's thoughts lingering. From this it is possible to say that the eye sees *through* the object or form, it has become a mere tool.[11]

Accordingly, it might be possible to say like ornament like science. The more positivist move in science and research towards getting rid of the *form of science* in order for it to function or work as intended - with its scientific content claiming objectivity - could also be seen as a move towards transparency.

With this I mean that in order for science to function as objective truth the evidence of its existence in providing that truth seems to be treated as empty space or as an empty eye.[12] Science as a form, as a way of doing and as a place from where someone (the scientist) provides what is entrusted as truth, must be emptied of meaning and must be seen as irrelevant for its outcome, which is objective truth.

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9 Loos (1929), "Ornament and Crime" in Loos (1998), *Ornament and Crime. Selected Essays*, Ariadne Press: Riverside CA, p.167-176, at 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 styles of older periods, the world must have seemed overflowing with ornamentation. The *art nouveau* movement flourished from circa 1890 up to 1910 in Europe, and from 1890 to 1920 in Sweden, see Olle Svedberg (2000), *Planernas Århundrade. Europas Arkitektur 1900-talet, [The century of planning. European architecture 20th century]*, Arkitektur Förlag: Stockholm, p. 27-33.

10 The "form follows function" paradigm continues in the Bauhaus movement, see Svedberg: 2000 p. 75ff.

11 In Peter Cornell (1993), Saker. *Om tingens synlighet, [Things. On the visibility of objects]*, Gidlunds: Hedemora, there is a discussion on the usage of objects and its latent (in)visibility. Cornell discusses the different approaches formulated by Heidegger and Husserl, which I translate as "for the hand" and "by the hand", p. 53-56.

12 I draw this conclusion from reading Haraway's chapter "The Persistence of Vision", see Haraway: 1991, in chapter 8.

By emptying the (scientist's) eye of unruly content, via a solution of accounted for objectivity criteria, it seems transparency in understanding appears.[13] And through an emptying of the space between the eye and the object of knowledge, I would argue that *transparency appears as an act of disappearance*.[14] 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.[15]

The results of this epistemological position seem to be simply out there, made to appear through a disappearance. The emptiness constructed 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, that is, 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. There can therefore be no disturbance - something that could make one's thoughts linger where they 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.[16] Even if my sketchy portrayal of positivist epistemology touches on the malicious, I think it may still serve as a background to what I want to consider in this essay. To some extent I also find that this type of portrayal has resemblances with how a more postmodern epistemology needs to disjoin from a positivist epistemology and its firm hold on matters of truth and objectivity.

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13 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". Rorty poses questions on scientific method, while Baudrillard questions the intentions of theory, in its endeavours to work as a reflection of things present, as a mere re-presentation of the world. See Richard Rorty (1981), "Method, Social Science and Social Hope", *Canadian Journal of Philosophy*, 4:1981:569-588, and Baudrillard (1988), *Ecstasy of Communication*, translated by Bernard & Caroline Schutze, Semiotext(e): New York, p. 97-101.

14 The philosopher Paul Virilio does not particularly discuss scientific method as a disappearance of itself and context in order to obtain objectivity, but I do think his arguments on disappearance are interesting here, see further in Virilio (1996 (1989)), *Försvinnandets estetik, [The aesthetics of disappearance]*, translated by Peter Handberg, Bokförlaget Korpen: Uddevalla.

15 Haraway: 1991 chapter 8 as well as 9, and also Rorty: 1981.

16 Yvonne Eriksson and Annette Göthlund write about the "pictorial turn", and its parallel in the "linguistic turn" where the meta-narratives of modernism are put into question. See Yvonne Eriksson & Annette Göthlund (2004), *Möten med bilder, [Encounters with images]*, Studentlitteratur: Lund, p. 20-21. Also John Storey (2001), *Cultural Theory and Popular Culture. An introduction*, Pearson Education: Harlow UK, makes the downfall of meta-narratives one of his vital points for understanding and addressing contemporary culture.

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.[17] These words seem inseparable from the act of research and its response and reciprocity. 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 the notion of truth.

Therefore I think 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 the affiliation is directed towards a more modernist or a more postmodernist view on the world.

Lately, or during the past decades, there has been a societal pull towards the understanding that all matters cannot be forced into the form of modernism or the form of positivistic science and research. 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.

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 Enlightenment action.[18] Here is also where the inseparability between power and knowledge is further stressed within more socially constructivist approaches. The awareness of the positivistic claims of science made its industrious adherents and their texts submitted to the act of deconstruction and discourse analysis.[19]

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.[20] It is so to say the background to the postmodern emphasis on content and meaning as intrinsically dependent on the beholder, although there seem to be acts that cannot be quite converted, even by more postmodernist or poststructuralist approaches or standards.

What I am thinking of is the eye, and particularly 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

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17 Haraway: 1991.

18 Per Olov Enquist writes "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 1970s held visibility-making close to their hearts. Foremost, with a new type of *visibility* there is also a new type of *invisibility*. See Per-Olov Enquist (2009 (1985, 1974)), *Nedstörtad ängel & Berättelser från de inställda upprorens tid, [Overthrown angel & Tales from the time of the cancelled revolts]*, Norstedts: Stockholm, p. 166.

19 See, for instance, Roland Barthes (2000 (1957)) *Mythologies*, selected and translated from French by Annette Lavers, Vintage: London, Storey: 2001 on structuralism and Arthur Asa Berger (1999 (1995)), *Kulturstudier. Nyckelbegrepp för nybörjare, [Cultural criticism. A primer of key concepts]*, Studentlitteratur: Lund.

20 The arguments I try here are influenced by Donna Haraway's writing, see Haraway: 1991 and also Haraway (2004), *The Haraway Reader*. Routledge: New York & London.

taking on a rigid constructivist approach, where only the beholder creates content, the things of the world that reveal themselves 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 becomes 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 same.[21]

In her writing 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".[22] The trick is to see "everything from nowhere" and as a consequence claim true authority.[23]

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 around, 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 space and time was the reason for the eye's living, acting and breathing.

In formulating the break away from positivist tradition Haraway writes: "I would like a doctrine of embodied objectivity that accommodates paradoxical and critical feminist science projects: feminist objectivity means quite simply *situated knowledges*".[24]

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 thing 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.[25] Yet, I think that the location of an eye, and a body, and in it a subject with dreams, hopes and memories remains a deeply tricky thing to understand, perhaps for oneself as much as for anyone else.

I believe these issues 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. Still, 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 to be mine in light of a more constructivist approach? And so, to what extents can one say that what I see and understand is not merely someone else's vision placed over my own?

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21 The way I understand it Cornell's writing in Cornell: 1993 circles around these questions.

22 Haraway: 1991, p. 189.

23 Haraway: 1991, p.189. The section I am referring to here is "The Persistence of Vision", p. 188-196.

24 Haraway: 1991, p. 188.

25 Haraway: 1991, p. 195.

My hesitation here has to do with what I believe "situatedness knowledges" could imply. As I understand Haraway she uses this term as a way to formulate a kind of accountability pragmatism. Yet, I think that there is a difference between *knowledge about ones situatedness* and *knowledge through situatedness*. I believe that the former could have 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 in my argumentation let me go back for a moment to what Haraway's situatedness could 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 a situated practice thus involves an intention to move away from the modus of the more positivist traditions.

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 and thought, saying that "this here and that other thing here", which are consciously known by me (the situated) are the things that in this time and place make me situated.

Taken to the extreme perhaps, I find that this version which I want to call *knowledge about one's situatedness* ends up in a conscious decision to take up certain aspects of the self that might be found equivalent to the term situatedness. Through this version of situated knowledges visibility of the self seems to end 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 more formally contextualize them, as for instance "the Gothenburg based author often works…", and the quote ends. I find such a phrase quite common if you switch 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 for groceries, it is a clear statement of some kind of location or context, but what impact has this on her or his thoughts on life, or in the act of writing?

It would seem that the statement is thought to make something visible, supposedly the same as saying one is white, or female, or middleclass etc. But stating this, in the belief that it makes one's intentions and situatedness better known, the words somehow also become transparent or "see through", and the person seems to disappear, again, just as it did from within the positivist eye.[26] This type of visibility request somehow leaves me wondering what it actually was meant to mean.

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26 Perhaps this runs parallel to what Haraway calls "the non-innocence of the category 'woman'", Haraway: 1991, p. 157.

I would like to think that humans are something more and other than a locatable context. Something so opaque that it cannot come anywhere near transparency. This is presumably why I find the seemingly irrevocable hold situatedness has on people and thoughts somewhat 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.[27] The addressees of this I take to be researchers and policymakers working within and manifesting themselves through a more positivist tradition, and what Flax mainly issues is a prompt request to discussing the deep impact the formal divide between society and science has on understanding them both.

Science as form exists because it is visualized as harbouring unattached thoughts which are thought to then be given back to society in the form of objective facts. Acknowledging that this notion of a linear model is greatly illusionary is fundamental also for Haraway's notion of situatedness.

There is a vital demarcation to make when it comes to acknowledging non-innocent places, and I think of it as one element that makes the difference between "knowing about" and "knowing through" situatedness, which I suggested above. For me there is a difference in saying that there are no spaces from where it is possible to claim truth or objectivity when speaking, from proclaiming as a consequence that everything has to be taken into account when trying to speak, and 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 words and being, it is a place from where it is mainly highly risky to speak. I do not think either Flax or Haraway intended it so.

As I have tried to argue in this chapter there are limits to what one can expect from the accountability that comes with knowing thyself. A tendency towards what could perhaps be called "self accountability" in the production of anything really, and not only research - as a sort of transformed consequence of the "postmodern" and the Harawayian drive towards letting go of the great narratives of objectivity - could as I understand it have reverse effects creating a newfound belief in transparency of thought and action.

One underlying motive in this direction towards this particular notion of accountability of thought could lie 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 us of the horrors of the unattainable, opaque and non-decipherable in thought.[28] Yet,

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27 I find this to be Flax's main argument in her article, see Flax: 1992.

28 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 Jean Baudrillard (2001), *Impossible Exchange*, translated by Chris Turner, Verso: London, especially chapters "Beyond Artificial Intelligence: Radicality of Thought" and "Living Coin: Singularity of the Phantasm". Also Jean Baudrillard (2005), *Conspi-*

the pushing towards the need for the identification of everything seems to leave the modernist objective and wish intact, in its adherents' need for a type of closure.

This runs parallel in some ways to what Katherine Hayles calls a "platonic backhand". Here "reality" is reduced to something abstract, that is, a model, which then comes to act as "the real" or ideal real in which the reality "out there" is put into, in order for researchers to find and create scientific results.[29] And just as with Plato's model of the world, it seems impossible to get away from the history of the notion of an ideal transparency in matters of (un)doing research and (un)doing science.

The danger in my view lies in believing in transparency's insistence, regardless of whether it is by 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.[30] 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.[31] Donna Haraway singled out the term cyborg in 1985 as a manifestation of these types of emerging and ongoing societal changes in order, as I understand it, to 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 Haraway calls a figuration, and in this lies its potential for being both a dream and a reality.[32] A cyborg should not know where the body (man) starts and the technology (machine) ends. There is in a sense no interest in delineating 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 some 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. Today technology is an inescapable part of scientific production as well as reality production. [33]

racy of Art, translated by Ames Hodges, Semiotext(e): New York & Los Angeles.

29 See Katherine N. Hayles (1999), *How We Became Posthuman. Virtual Bodies in Cybernetics, Literature, and Informatics*, University of Chicago Press: Chicago & London, p. 12f.

30 See Martin Heidegger (1974 (1954, 1962)), *Teknikens Väsen och andra uppsatser. [The being of technology and other essays]*, Rabén & Sjögren: Uddevalla.

31 There is a vast theoretical field related to these questions. For a discussion related to technoscience, see Lena Trojer (2002), *Genusforskning inom Teknikvetenskapen - en drivbänk för forskningsförändring, [Gender research within technoscience - a hotbed for research transformation]*, Högskoleverket: Stockholm, also Elisabeth Gulbrandsen (2000), "Genusforskningens relevans", ["The relevance of gender research"], *FRN*, 2000:68-81, and Haraway: 2004.

32 See chapter 8, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" in Haraway: 1991, p. 149-181.

33 See the article by Lena Trojer (1995), "Clean and Unclean Facts: Reflections on Scientific/Tech-

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 of visibility, and perhaps also a continuous hope of a total transparency of the world.[34]

Technological 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.[35] 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 starts. This understanding is said to create a non-linear mode of conduct and "doing".[36]

The term technoscience is then thought to partly clear the confusion concerning the presumed demarcation between the entities science and society, and instead make them visible as *co-constructing* each other. If the premise is a will to show the loss of demarcated boundaries a term like embeddedness would seem awkward, since with it it becomes unclear which of the entities has sunken down into the other. Even so I believe the term co-construction poses a problem.

The problem is in part related to the conceptual field of what seems often termed "mode 2" where issues of co-construction are theoretically debated and practiced. The problem then has to do with my own confusion as to what the terminology of "mode 2" is meant to describe and how it is meant to function.

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 particular terminology 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?

nical Production of Knowledge in a Feminist Research Perspective", revised as Lena Trojer (2009), "CLEAN AND UNCLEAN FACTS. Diffractions on Knowledge Production", in Cecilia Åsberg (ed.) (2009), *Gender delight: science, knowledge, culture, and writing, for Nina Lykke*, Linköping University, Faculty of Arts and Sciences, Tema Genus: Linköping. The issues discussed here primarily relate I think to the natural/bio-tech/tech sciences.

34 **Moving towards total visibility I think is closely linked to Haraway's "Land, ho!" discussion,** chapter "The Biopolitics of Postmodern Bodies: Constitutions of Self in Immune System Discourse" in Haraway: 1991, p. 203-230, at p.221.

35 **Karen Barad's discussion in Barad (2007),** *Meeting the Universe Halfway. Quantum Physics and the Entanglement of Matter and Meaning*, Duke University Press: Durham & London, chapter five, "Getting Real: Technoscientific Practices and the Materialization of Reality", p. 189-222. See also the article by Sarah Franklin where she takes a somewhat different approach, yet acknowledging the deep impact technological artefacts have on making things visible: Sarah Franklin (2003), "Re-thinking nature-culture: Anthropology and the new genetics", *Anthropological Theory*, 3:2003:65-85.

36 **As Professor Lena Trojer so aptly put it in conversation with me, 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.

If all three of these statements are incorporated in and depict the "mode 2" concept as way of doing and as theory, the question of pointing to a history of scientific and societal belief in scientific detachment becomes somewhat curious. This is 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? These questions sketched here will lead me when discussing the theory and practice of the "mode 2" concept in relation to what is made visible and thought of as *functional* for society.

As discussed by Nowotny, Scott and Gibbons the concept of "mode 2" aims to 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 Nowotny, Scott and Gibbons, enable a higher degree of accountability when it comes to what is labelled the outcomes or *products* of science.

Nowotny, Scott and Gibbons 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 (jointly?) find in society.[37]

From what I understand when reading Sheila Jasanoff and Helga Nowotny, both of whom I take as adherents of a "mode 2" influenced conduct in scientific and societal production, the structural differences they point to between the two "modes" schematically look as follows:

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? Was 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 intend by this demarcation is to point to how the practitioners of "mode 1" *thought and still think* of their own work as non-political and non-ideological, as simply going about doing research in "the culture of no culture".[38] Yet, I believe what this type of demarcation between the two modes also shows 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), seems to me to be intact no

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37 Helga Nowotny, Peter Scott & Michael Gibbons (2001), *Re-Thinking Science*, Polity Press: Cambridge & Oxford.

38 See Trojer: 2002, p. 56, quoting Sharon Traweek (1988), p. 162.

matter what mode, yet the form for reaching the dream is presumed to change quite dramatically depending on mode.[39]

The "mode 2" practice, Jasanoff continues, has made questions of the kind "is it good science?" out of date and anachronistic. Instead of the presumed 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?".[40] As a consequence to this request both Jasanoff and Nowotny only regard what they term "socially robust" knowledge as something worthwhile doing.[41]

Robustness will accordingly lead (the way) to a better societal whole. One formula for creating this kind of sturdiness comes from getting 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.[42] Robustness should thus imply a larger degree of accountability, which seems to be fostered by a chain of openness and transparency.[43] 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.[44]

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 constitutes and ideologically conveys in these arguments.[45] 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?

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39 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 (1987)), *Demokratimodeller. Från klassisk demokrati till demokratisk autonomi, [Models of democracy. From classic democracy to democratic autonomy]*, Daidalos: Göteborg. I think my argument here can find some ground in Barad's words, that "concepts are specific material arrangements", see Barad: 2007, p. 196.

40 Sheila Jasanoff (2006), "Transparency in Public Science: Purpose, Reasons, Limits", *Law and Contemporary Problems*, 69:2006:21-45, especially here p. 24 and p. 26.

41 Jasanoff: 2006, p. 26.

42 Jasanoff: 2006, p. 26. Jasanoff aligns these arguments with "informed participation" (p. 21) and "informed debate" (p. 25).

43 Jasanoff: 2006, p. 25 "(n)either institution views disclosure as an unquestioned good, though both are firmly committed to openness and transparency".

44 See Jasanoff: 2006, p. 22, my italics.

45 Jasanoff: 2006, p. 24. Public science is "when science is generated to serve public purposes" (p. 26). Alvin Weinberg's discussion points in a similar direction with his dichotomizing of science and trans-science, see Weinberg (1972), "Science and Trans-Science", URL: www.student.uib.no/~dho021/fishman/file folder/files/Weinberg1972.pdf, accessed 2009-01.

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".[46] It is so to say a rhetorically rather shaky description, which does not explain what constitutes 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".[47] She goes on by saying that "(o)nce there is awareness of accountability, (…) then it can become a way to broaden the horizon *for those whom you are producing* knowledge".[48]

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 the knowledge produced. 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" practice? 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 unrestrainedly when arguing the need for "sufficient detachment and distance" in order to understand scientific arguments.[49] If this is the case, that the dream of Science still very much pertains, Bruno Latour's phrase "we have never been modern" merely seems to become a stepping stone.[50]

Utilitarianism, as part of the "mode 2" theory and practice, 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.[51]

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. The normative foundation

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46 Jasanoff: 2006, p.24.

47 Helga Nowotny, "The Potential of Transdisciplinarity", p. 2, URL: http://www.interdisciplines. org/interdisciplinarity/papers/5/24 or http://www.helga-nowotny.at/documents/Transdisciplinari-ty.pdf, accessed 2009-01.

48 Ibid., my italics.

49 Jasanoff: 2006, p. 34 and p. 42.

50 See further in Bruno Latour (1991), *We Have Never Been Modern*. Harvester Wheatsheaf: New York & London.

51 John Stuart Mill (2003 (1861)), *Utilitarism, [Utilitarianism]*, Daidalos: Uddevalla.

for the argumentation on knowledge as utility is thus exceedingly important. 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, enacted 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 which is important here is the evaluation of social relevance. Jasanoff argues in an article from 2003 that "technologies of humility" for policy-makers need to be developed and implemented so as to ease the strain that could arrive from bad policy decisions.[52] However, in terms of accountability, who is directed to find parameters for 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 least symbolically indicates a higher degree of social utility.[53]

Another related issue in matters of deciding science utility is the increased amount 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 the economic means and possibilities to describe the needs of a society?[54]

Feminist scholar Nina Lykke gives a somewhat differently directed answer to the questions of form and function of science, not so much discussing the co-construction of society and science as arguing for another approach to what should constitute scientific research *within* the academy. Whereas Lykke briefly touches upon what she refers to as a pull towards a "massification" of academia, she does not elaborate what this "massification" further does to either education or education culture.[55]

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52 Sheila Jasanoff (2003) "Technologies of Humility: Citizen Participation in Governing Science", *Minerva*, 41:2003:223-244, p. 16, contrasts this with what Jasanoff terms "technologies of hubris".

53 Jasanoff: 2006, p. 24.

54 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. See Patrik Hall (2009), "Utvecklingen går mot ökad styrning", ["The development head towards increasing steering"], *Universitetsläraren, [The university teacher]*, 7:2009:14, p. 14.

55 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 as education culture, and *utbildning*, translated as education. In this distinction, education does not necessarily lead to education culture, See Nina Lykke (2009), *Feminist Studies. A Guide to Intersectional Theory, Methodology and Writing*, chapter 2, p. 9, excerpt from unpublished manuscript by Nina Lykke (2008), *Kønsforskning. En guide til feministisk teori, metodologi og skrift*. Samfundslitteratur: Köpenhamn.

As I understand it, this cannot be related to a preferable scenario for Lykke, if one thinks about how the word "massification" is burdened by all kinds of hierarchical dimensions.[56] 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 more or less intact.

Acknowledging that we as researchers 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 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.[57] Hence, Feminist Studies should in practice work towards simultaneously being both a discipline and dissolving its own disciplinary boundaries.

Still, a hope for dissolution reads to me like a hope for detachment. As I understand it, such a hope seems part of a more modernistic thought-figure. It is to think one is able to detach oneself from history, or tradition, or discipline, in order to become something completely else, something non-historical or a-historical.[58]

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. There might also be hesitations as to whether such research would be done within academia, since there would be no academia, in the traditional sense of the word, left to talk about.

Form

The time has come to sum up what I have been discussing throughout this essay, in a way to point to its form. 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".[59] 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 visualization techniques has been *exhausted* of content and of meaning, it has become "an image where there is nothing to see".[60] In this essay I have tried to oppose or argue against the views which I find are ways to keep on creating this specific 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.

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56 Storey: 2001, p.17-35 on "the mass of mankind", quote p. 22.

57 Lykke: 2009, chapter 2, p. 7.

58 Svedberg: 2000 discusses these issues in relation to modernistic architecture and the Bauhaus movement.

59 I am referring to the title of Baudrillard's work from 1988, *The ecstasy of communication.*

60 Baudrillard: 1988, p. 31.

In this essay I have tried to relate transparency to function, arguing that it is problematic to visualize function as the right and only form, whether it be in terms of thinking about scientific research and it's relation to society, or in 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 actually is about the removal of ornamentation, of things, acts and understandings that cannot be forced into words or theoretical models.

And so the question whether ornament is merely decorative, a filling before getting to the real function of things, I think is epistemologically still valuable and crucial. My hesitations throughout the text have been directed towards the notion of directness and transparency in thought. In relation to 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 via situatedness.

It is not that I want to argue for anti-function, or dysfunction in any way, because they are both very much within a more 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 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 that holds true significance.

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III. Notes on Representation and Visual Optics[1]

> Siting (sighting) boundaries is a risky practice.[2]

> [W]hat one offers in a description is a representation of thinking about a picture more than a representation of a picture.[3]

This is where I think it started for me. With a model made up of spheres trying to explain how I, and everybody else for that matter, make sense of the world and of the images in it. By some theoretical standards it would be more accurate of me to say something more like with "the images that make up the world", but I will deliberately leave this discussion for now.

I remember sitting on a fellow student's living room rug doing preparatory work for paper writing, coming across the model below (figure 1) and thinking that it somehow made perfect sense.

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1 These notes are drawn from the methodological discussion in my MA thesis in Gender Studies from Malmoe University, written in 2004, "En kontrollerbar maskin? Representation av förhållandet mellan människa och maskin i the *Matrix-trilogin*", ["A controllable machine? Representations of the relation between man and machine in the Matrix trilogy"].

2 Chapter 9, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives", in Donna Haraway (1991), *Simians, Cyborgs, and Women. The Reinvention of Nature,* Routledge: New York, p. 201.

3 Michael Baxandall (1987), *Patterns of Intention. On the Historical Explanation of Pictures*, Yale University Press: New Haven CT & London, p. 5.
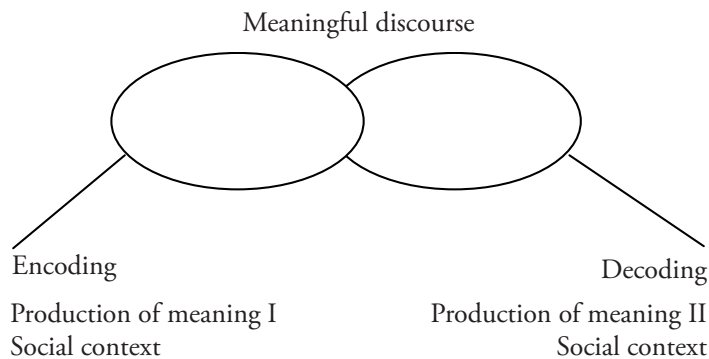
Meaningful discourse

Figure 1. Illustration of Stuart Hall's encoding/decoding scheme, from van Zoonen (1994) p. 8

Nowadays I am not so sure. However, the model has stuck with me. Partly, I believe, because I now find it fascinating in its non-innocent linearity, and partly also because I find it resonates with and reflects the continuous value-laden distinctions between both idea and appearance and form and content, which amount to a whole western cultural system filled with people, practices, objects and signs.[4] The encoding/decoding model of the world figured above is indeed part of and appreciative of what I would like to call a more platonic view of the world.

In a platonic world nothing is as good as the immaterial and contextually unbound idea where all real and true meaning is confined. Simultaneously materiality and all things material are regarded as lesser forms. A duality, bound by the hierarchy between two presumed fixed entities, is thus created and confirmed in this world view.[5]

In this essay, my fascination is a way of situating myself both within the practice of reading and writing on the meaning and matter of representation and within the concrete practice of media technology.[6] Mainly I want to engage in the loosely tied, yet for me, tangible questions which are entwined with matters of representation, namely those of *visuality, meaning-making* and *value*.

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4 Jean Baudrillard seems to me to be one of its most intriguing critics and tender adversaries. See, for instance, Jean Baudrillard (1988), *Ecstasy of Communication*, translated by Bernard & Caroline Schutze, Semiotext(e): New York, for a short and condensed introduction to Baudrillard's thinking until the late 1980s. See also, Victoria Grace´s exposition of Baudrillard's work in Victoria Grace (2000), *Baudrillard's Challenge. A feminist reading*, Routledge: London & New York.

5 The work of Plato is certainly infinitely more complicated than I give it credit for here. See Platon (2001 (ca 374 BC)), *Staten, [Republic]*, translated by Claes Lindskog, Nya Doxa: Nora. The written theoretical discussion on legitimizing de-contextualization might have begun with Plato's dialogues, but it did not end with it. Descartes thesis "cogito ergo sum" further establishes and privileges this type of theory of and practice in the world. See the essay by Paul Oskar Kristeller (1951/1952, 1996), *Konstarternas moderna system En studie i estetikens historia, [The modern system of the arts. A study on the history of aesthetics]*, translated by Eva-Lotta Holm, Skriftserien Kairos nummer 2, Raster Förlag.

6 For Haraway's discussion on situated knowledges, see chapter 9, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives", in Haraway: 1991.

The question that fills my thoughts whenever I see something that fascinates me whether it be a photograph, a lamppost or any other object, is: We all see things, forms of all sorts, how do we understand and make sense of the things we have seen? Particularly interesting to me are the issues concerning meaning and value, such as: *How do we go from making sense of what we have seen, to proposing certain optic schemes from which we value our sightings?* However, this type of question could be regarded as flawed because of its linear mode. Somehow it has as a prerequisite firstly that I see, secondly that I understand, and thirdly that I evaluate. If the question is turned around, asking "What kind of optical scheme do we use to make sense of the things we see?", there would also be linearity in the question, although a reversed one.

Even so, I find that the question of how we come to make meaning of things seen is fascinating and vital, especially in my own work context in a faculty of media technology, where different types of digital image productions are done daily. What I believe is crucial in the discussion on meaning-making and representation is how the role of the beholder is theoretically understood, particularly if meaning-making is thought of as a symmetrical reflection of the intentions of the creator(s) or the producer(s).

For these reasons I want to look more closely here at the linearity of the encoding/decoding model figured above, proposed by British Cultural Studies theorist Stuart Hall. By engaging with the work by Stuart Hall, I try to imagine how it would be *if practices for looking were not only thought of and acted upon as ideological devices, but also as things of real meaning, which perhaps cannot be foreseen by structural models of representation.*

My argument throughout this essay will be that the theoretical filling of the *re* in the concept of representation can be a somewhat effective means to engage in pre-determined practices of looking. With this I mean that with the *re* composed of a certain theoretical content, *seeing* can sometimes become a difficult practice full of restrictions.[7] I draw some of these arguments from my own work in Gender Studies, as illustrations of how research results can come about through the beholder's and the researcher's sightings of what is being *re-presented*, and also as a way of thinking about theory as a visual enhancer or optical device.[8]

I want to put *in* the picture the necessity to *situate* imagery, seeing and imaginary *within* a context, and through situatedness to try to understand how meaning can be made. I do this by discussing briefly how Teresa de Lauretis' questioning of theoretical formulations on representation focuses on accountability in imagery-making.

Such a focus leads me to argue that Donna Haraway's discussion of situated knowledges can be important in order to understand meaning-making processes. Understanding situatedness, I believe, can be one way not to lose images and forms of all kinds to theoretical discussions that are inclined to state form and content as either pure ideology, or as instantly credible.

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7 An argument like this can resonate with Kuhn's analysis of what normal science consists of, and consequently how shifts in paradigm come about. See further Thomas S. Kuhn (1992 (1970)), *De vetenskapliga revolutionernas struktur, [The structure of scientific revolutions]*, Thales: Stockholm.

8 Thus, "Siting (sighting) boundaries is a risky practice" as Haraway puts it: Haraway: 1991, p. 201.

What is an Image?

I was introduced briefly to the theoretical perspective of encoding/decoding and representation through my writing in Gender Studies. I needed an "explanation" or a pretext for saying things about gendered manifestations in music videos, and in order to do so a framework for talking about it had to appear somehow. As if out of nowhere, in a pile of books growing randomly larger, I discovered the work of media scholar Liesbeth van Zoonen, and began to find myself drifting into the field of Cultural Studies.

Later when I was writing my MA thesis, epistemological questions appeared which made me feel exceedingly confused. How could I possibly justify and legitimate talking about moving images (movies), their content and latent or manifest gendered imagery? Since legitimating one´s own statements, my own statements, in theory was the basis for a more scientific approach to things, I had to come up with something. *Representation* as some sort of vague naming for a "tool" came to mind. Ever since this first contact with the theory of Stuart Hall, through the work of Liesbeth van Zoonen, I have been wondering about the dubious tendency to lock specific content and meaning into imagery, and to other objects classified as cultural phenomena.

What is it that I actually *do to* the image when I try to employ the type of clarification scheme or model set out above (figure 1)? Some of the ontological and epistemological implications of such an approach to imagery and objects will be discussed in the following.

Firstly I will give an introduction to the theoretical work behind the encoding/decoding model by Stuart Hall, and put it in a context of some attempts in the field of Cultural Studies to categorize and classify so-called cultural phenomena. I will focus on what the implications of this encoding/decoding model could be, and lastly argue for a somewhat other epistemological position and practice.

Image as Sign

The theoretical framework which originated from the Centre for Contemporary Cultural Studies at the University of Birmingham, England, in the 1960s, with Stuart Hall as one of the leading researchers and the director, put forward an argumentation about the *encoding/decoding of text and representation as text*.[9] The argument goes that text, as an overarching name for all kinds of locutions which can be read (off) and interpreted in a society, is the carrier of multiple meanings and thus is open to a number of different possibilities for interpretation.

"Text" in this sense operates in immaterial as well as material ways, and seems to include everything from lampposts, TV shows and individuals, to texts in books or

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9 I draw this from the key writings of the Centre for Contemporary Cultural Studies, collected in the volume *Culture, Media, Language* (1980), which contains working papers in Cultural Studies from 1972 to 1979. The editors, I presume, were some of the leading figures of the Birmingham school during this time, including Stuart Hall, Dorothy Hobson, Andrew Lowe and Paul Willis. Also, for a discussion on representation, see Stuart Hall (ed.) (1997), *Representations. Cultural Representations and Signifying Practices*, Sage: London.

moving images. Everything is in a sense reduced to a *textual entity* or capacity since all objects and practices are located within language and therefore read in order to be understood. An argumentation such as this can be viewed as a consequence of a post-structuralistic approach to and understanding of the world. It had perhaps during this time become theoretically impossible and highly un-gratifying to try to fix language and its usage to a certain type of meaning-making and signification practice.[10]

The post-structuralist approach brings forward the idea that a sign consists of and is broken down into two units, one which shows or visualizes what the sign stands for in a certain historical context (*signifier*), and one which reveals what the sign can trigger, release or connote for the receiver in a certain historical context (*signified*). Thus a certain sign is made up of a signifier and a signified.[11]

What differs from a structuralist view is that in this instance language does not reflect a reality "out there" ready to be put into words. Both the signifier and the signified are constructions presumed to be open to (re)interpretation, (re)negotiation and (re)production.[12] According to this theory, we not only use signs as a reflection of reality, we create this reality with the usage of signs. To return briefly to the first passage in the introduction above, the argument that "images make up the world" could be said to be part of and reflect the ontological and epistemological approach of post-structuralism. Sign is understood as a meaning-(re)making practice, contextually based and changing, and here I would like to add, never innocent in content either.[13]

Image as Preferred Meaning

Although initially recognizing in his article how a more post-structural approach renders connotation and signification more open to contextual making of meaning and interpretation, Stuart Hall argues that most texts and representations are *limited* by an ideologically anchored preferred meaning.[14] Hall writes:

10 In relation to the linguistic turn, see, for instance, Roland Barthes (2000 (1957)) *Mythologies*, selected and translated from French by Annette Lavers, Vintage: London.

11 Building from de Saussure's structuralism, this approach is the work of amongst others Roland Barthes. I find it particularly interesting that Barthes also creates a model (of language) for solving "the problems" posed by reality, the description of reality and the understanding of the same. See further Barthes: 2000, especially p.115 for the visualized model of language in the chapter "Myth Today", p. 109-159.

12 For more introductory texts on semiotics and post-structuralism in Arthur Asa Berger (1999 (1995)), Kulturstudier. Nyckelbegrepp för nybörjare, [*Cultural criticism. A primer of key concepts*], Studentlitteratur: Lund, see p. 70-91, especially p. 79-81: and the chapter entitled "Structuralism and Post-structuralism", in John Storey (2001, 3rd ed.), *Cultural Theory and Popular Culture. An introduction*, Pearson Education: Harlow, particularly p. 64-71.

13 Donna Haraway states that there are no innocent positions from where one can speak. As I understand it, this implies that speaking can never be anything but a non-innocent activity. See Haraway: 1991, chapter 9.

14 See Stuart Hall, "Encoding/decoding", in Stuart Hall, Dorothy Hobson, Andrew Lowe & Paul Willis (eds.) (1980), *Culture, Media, Language*, Routledge: London & New York, p. 128-38, at p.

[e]ncoding will have the effect of constructing some of the limits and parameters within which decodings will operate. If there were no limits, audiences could simply read whatever they liked into any message.[15]

This limitation or preferred meaning, which is encoded by the sender of a text/image and undergoes decoding by the receiver, puts a definite end both to an endless play of signifiers and to multiple possibilities of interpretation. Consequently, thinking about and interpreting an image or a text of any kind, and imaging what might be behind it and in it, becomes a rather simple and instrumental act of decoding. The beholder cannot get away from what I assume Hall regards as the consciously constructed purpose and intent of the producer(s). All content can be *recognized* and *categorized* within the predetermined preferred decoding and meaning.

However, instead of arguing in line with a completely reductionist view on the world, saying there can be only one way to interpret and make meaning of a text, Hall introduces the notion of a *certain number* of possible positions from where it is possible to decode. He writes: "[w]e identify *three* hypothetical positions from which decodings of a television discourse may be constructed". [16] These three positions Hall refers to as: (1) "the dominant-hegemonic position", (2) "the negotiated code" and (3) the "oppositional code".[17]

The dominant-hegemonic position, Hall argues, indicates that the decoding of meaning perfectly matches the encoded message, since "the viewer is *operating inside the dominant code*".[18] This would imply that anyone interpreting or making meaning within the dominant code is ultimately reproducing the hegemonic value and ideology found in the encoded message. Accordingly, there is not much room for divergent understandings here, let alone misunderstandings.

A decoder positioned in the "negotiated code" on the other hand, is open to "a more negotiated application to 'local conditions'" of the dominant code of meaning-making, than what is possible within the first decoding position.[19] Interpretation and making meaning within the "negotiated code" entails that the intended meaning

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132-4, p. 294-5.

15 Ibid., p. 135.

16 I regard the particular emphasis on television and its discourse as slightly constructed to suit the "Media Studies" field within the Centre for Cultural Studies. Hall uses a television newscast as an example, yet I find this discussion implies its applicability on media and imagery more generally. The main question here I think is how meaning-making, independent of medium, is being heavily reduced and formalized. See *ibid.*, p. 136.

17 Decoding positions see, *ibid.*, p.136-8. Here I must emphasize that although Hall focuses on and brings forward these three positions of decoding he does not *explicitly exclude* other ways of interpretation and making meaning. In relation to this Hall does not formally reduce understanding and interpretation to a hierarchical duality with his three decoding positions. This could be interpreted as a step away from the hold dichotomous classification, understanding and practice has had, and still has, in western societies.

18 See ibid., p. 136.

19 Ibid., p.137.

of a text gets across to the person doing the decoding, even though she/he applies this meaning to her/his own context. However, according to Hall, contextualizing is thought of as a sort of silent conformation of the grand hegemonic meaning encoded. Because the decoder takes the encoded meaning as the truth, as a true statement, when applying it to her/his own contextual conditions.

The third position, the "oppositional code", on the other hand, demands the level of "perfectly" understanding the intended message, and finding it non-relevant, highly misguided and ideologically false. Hall argues that "[t]his is the case of the viewer who listens to a debate on the need to limit wages but 'reads' every mention of the 'national interest' as 'class interest'".[20]

In summary, I find the three positions regard the beholder, receiver and meaning-maker as (1) a non-reflective medium for hegemonic thought, (2) a partially non-reflective individual, or as (3) a reflective reader of hegemonic discourse, which according to the argumentation above is the highest form of reflectivity. Nowadays I find that what Hall actually does throughout his argumentation on encoding and decoding is to force an insertion of a structuralistic understanding of the world into a presumed more post-structuralistic form. By doing so the main issue here I believe lies in how meaning-making, independent of medium, is being heavily reduced and formalized.

Image as "Tool" and "God-Trick"

One crucial issue for me, when I tried to apply Stuart Hall's encoding/decoding scheme and use it as a "tool" in writing my MA thesis, was to recognize that I was a receiver of representations concerning gender and technology. In the position as a receiver I was to use Hall's decoding positions to decode if and in what way alternative ways existed of interpreting my moving image material. My potential findings of presumed alternative ways of interpreting the material would then be put in relation to what I found to be the preferred meaning and decoding. I would do this, I argued at the time, in order to see if the representations showed or carried contradictory features.

Today this strikes me as quite an odd way of thinking about my own positioning as "researcher". What I did here was literally to indicate myself as decipherer of all the above ways of decoding, and on top of that implicitly stated that I consequently could know the "real" intention or meaning of the film that I was about to analyse. Stating that one would look out for contradictory features in moving image material seems to be a claim one can make only when one believes there exists *one true* interpretation. Only then, I am now partly inclined to think, is it possible to see something as non-contradictory.

The fallacy was perhaps not entirely of my own doing, since what Stuart Hall actually does when he discerns three ways of interpreting image/text is to put himself in the position of understanding and discerning between them all. What I nowadays would like to call a *meta-decoder* position seems built into Hall's theory. It takes this

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20 *Ibid.*, p.138.

theoretical position as a prerequisite, which functions as a type of legitimizing frame for statements made.

Thus, a problem arose when I was trying to find out which interpretation or decoding position I was actually trying to make sense of, or "do" in relation to my material. Nowadays I think it is quite possible as a "grand decoder" to put one's own false notions and stereotypes onto any (text-)material, presuming these notions to be the grounds for making statements of, for instance, a decoding within the "hegemonic position". Consequently, I could have easily passed for someone only interested in affirming my own stereotypes about meaning-making and people, and at the same time finding myself conveniently out of its gripping hands.

This type of theoretical classification scheme for making meaning has no actual contextual layers or any room for situatedness in that it does not seem to place the "grand decoder" somewhere. Instead it seems to keep Hall and any other decipherer in a sense free of context and perhaps ultimately in a position of practicing and cultivating what Donna Haraway calls the "God-trick".[21]

A practicing of the "God-trick" reflects the lack of a more explicit discussion on how meaning can alter dependent on *who* is doing, in Hall's terms, the encoding and the decoding. The processes of encoding, decoding and of meaning-making are situated practices that both hold and become something of value or non-value within specific contexts and locations.

Hall's theory is thus somewhat at odds with what Liesbeth van Zoonen emphasizes, which is the absolute importance of recognizing gendered societal power relations in order to understand more fully how interpretation and meaning come to be, both when it comes to encoding and to decoding. Gender relations are simultaneously (re) inscribed and (re)enforced in media in general, van Zoonen argues, since these relations basically reflect the rest of society.[22]

This was something I could recognize through my readings in Gender Studies, which taught that lived categories like sex, gender, sexuality, ethnicity, class or religion all influence the processes of meaning-making. Thus I was determined to find these gendered relations manifested and visualized in my material.[23] In a way, then, I stated the obvious. The moving image is a product created and conducted in a society filled with structural, symbolic and individual gender power relations, and it goes through

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21 Some might claim that this is ultimately the job of theory, to generalize in order to see "the bigger picture". I find that if one accepts the validity of this argument, one also needs to be aware that one's own positioning and privileges are not excluded from and exist within this "bigger picture". For Haraway's phrasing, Haraway: 1991, p. 191.

22 See particularly in Liesbeth van Zoonen (1994), *Feminist Media Studies*, Sage: London, Thousand Oaks CA & New Delhi, p. 62-5. For a related discussion, see Paul Du Gay (ed.) (1997), *Production of culture/cultures of production*, Sage: London, Thousand Oaks CA & New Delhi.

23 I write influence here, even though I believe there is a wide range of theoretical texts that claim or would have it to be (more or less) determined. For related arguments, see van Zoonen: 1994, or Haraway's discussion on "the non-innocence of the category 'women'", in the section entitled "Fractured Identities", in "A Cyborg Manifesto: Science, Technology, and Socialist – Feminism in the Late Twentieth Century" in Haraway: 1991, p. 155-161, at p. 157.

an encoding process in relation to this overarching structure, its symbols and individuals.[24] Consequently, I had already found grounds for what I was about to visualize and state in my text.

Nowadays this makes me wonder about the sort of built-in seemingly instant gratification of using this type of theory on imagery matter, regardless of whether it is written by Hall or by van Zoonen. What I mean to say is that I find it increasingly difficult to understand and motivate using the type of visualization scheme or visual optics that is built-in, and comes in effect when using this type of theory.[25]

Image as Intrinsic Value

Some years before writing his article on encoding/decoding, Hall tried to establish a sort of classification scheme for looking at and thinking about art. The classification scheme encompasses the concepts of *medium* and *form* as the basis for making distinctions about art. In this text Hall finds it possible to evaluate and categorize presumed cultural art phenomena into the three descriptive terms "popular arts", "art" and "mass art".[26] The classification has major setbacks for what Hall perceives to be manifestations of/in *popular culture*, which he assigns to the category of either "popular arts" or "mass art".

Although initially stating that he indeed identifies the need to "train a more demanding audience", in order to deal with the vast cultural landscape and industry better, such training more or less seems to end up with wanting what Hall perceives to be expressions within the realm of "high culture".

In this realm one demands, for example, jazz and not pop music, because according to Hall "mass culture is always pre-digested", since "our responses are predetermined rather than the result of a genuine interaction with the text or practice".[27] Formative for "mass art", according to Hall, is its total lack of authenticity, which is caused by the production being made for a commercial market. The lack of authenticity is also due to its "formalistic, escapist, aesthetically worthless, emotionally unrewarding" form and content.[28]

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24 This argument is in line with Sandra Harding's distinction of three levels of gendered power relations in society. See Sandra Harding (1986), *The Science Question in Feminism*, Cornell University Press: Ithaca NY & London, p. 18ff.

25 My intention here is not in any way to question the legitimacy of Cultural Studies. What I am hesitant about is rather the potential effect of using theories which are constructed to reflect reality, more in line with Baudrillard's discussion in his last chapter in Baudrillard: 1988.

26 For a short discussion surrounding Hall's distinction of "art", "popular art" and "mass art", see chapter "Culturalism", particularly in Storey: 2001, p. 51-56. These hierarchical distinctions of art were primarily made in Hall's and Whannel's *The Popular Arts*. Hall's argumentation here I find runs parallel to that of the Frankfurt School, especially the critical theory of Theodor Adorno. See, for instance, Theodor Adorno (2001 (1976, 1972)), *The Cultural Industry. Selected essays on mass culture*, Routledge Classics: London & New York.

27 See further Storey: 2001, p. 52.

28 Storey: 2001, p. 54.

The incentive of "popular art" on the other hand is to reproduce stereotypes and confirm delusions and false notions of all sorts. Yet somehow it holds some genuine touch, because according to Hall "popular art" does not try to be anything but popular, instead it is "essentially a conventional art which re-states, in an intense form, values and attitudes already known; which measures and reaffirms, but brings to this something of the surprise of art as well as the shock of recognition".[29]

Here I want to return briefly to the Platonic worldview, which is a worldview Hall seems to be immersed in when he most efficiently leaves little room for imaginary and contextual understanding of both form and content. It is as if images or art forms have immediately locatable intrinsic value.

Even though Hall's formal motivation for writing about these issues may have been a felt need to place "popular culture" within the realm of important theoretical debate, Hall's argumentation in my view seems to end up (re)placing and sanctioning the notion of "high culture" as the only culture. If the formal intent was to discriminate between and within the wide realm of "popular culture", Hall cements further the value-laden difference between high and popular culture, stating:

> [o]nce the distinction between popular and mass art has been made, we find we have by-passed the cruder generalizations about "mass culture", and are faced with the full range of material offered by the media.[30]

What I believe Hall in the end offers in his two sets of distinctions - where one distinction covers the formalizing of interpretation and content (encoding/decoding), and the other covers evaluation of (art) form - is that there is not much left worth calling meaningful culture. Cultural phenomena with this type of circumscription seem to become primarily a way further to cement and re-proclaim either a very privileged and small stream of "high culture" phenomena, or a very wide and deep stream of hegemonic ideologically stained phenomena.

The belief in an overarching hegemonic encoding and decoding appears to subordinate the contextual meaning of any text, image or object in favour of saying that its real purpose is to maintain the hegemonic status quo. I find this paradoxical looking at how the field of Cultural Studies made a name for itself as a discipline by arguing for the necessity theoretically to widen the field of study of culture, particularly if there was to be any possibility of understanding contemporary and the present time.

As I understand it, this reason stemmed from the idea that not only "high culture" needed and was important for theory. So-called larger or wider cultural phenomena were also important in this respect, in that they also needed theoretization. In retrospect this already predetermined categorization of cultural phenomena into "high" and "popular" could be seen as only further cementing the concepts and their presumed inherent value. Presumed larger cultural phenomena, as for instance the medium of television, thus became a crucial part of understanding the production and reproduction of society and its ideological structures for the Cultural Studies field.[31]

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29 To quote Storey: "Popular art is not art which has attempted and failed to be 'real' art, but art which operates within the confines of the popular." See further Storey: 2001, p. 53.

30 Quote from Hall and Whannel, in Storey: 2001, p. 54.

31 See further Hall, Hobson, Lowe & Willis (eds.): 1980. I find it especially interesting that the

What I find paradoxical when reading from this field of study is the tendency to see ideology as *overshadowing all* cultural phenomena, with the seeming exception of "high culture" - I might add all presumed meaningless cultural phenomena. Cultural manifestations, with the exception of a few, then, simply become manifestations of ideology. In a sense, the widening of the field of cultural study ends up theoretically narrowing the kind of interpretations and meanings which could be found in any type of cultural phenomena.[32]

And so meaning slips away. If I were to believe in Hall and the theoretical framework he put forward and practiced in these texts, I would perhaps find myself thinking that understanding and meaning-making largely works to cement ideological structures that are bound to keep (other) people ignorant of a real, yet subtly hidden, underlying truth. I would perhaps also be inclined to think that discovering and bringing forward this truth would be a meaningful thing for a researcher to do.

Writing this is by no means my way of arguing that there are no ideological frameworks at work in society, or that there are no intentions behind cultural phenomena such as a lamppost, a TV show, or a piece of clothing. I simply mean to argue that the kind of categorization done by Hall could be thought to leave so many dimensions of understanding, interpretation and meaning-making out of the model of the world that the model itself becomes nearly empty.

Parallel here is the "Platonic backhand". This is what Katherine Hayles calls it when a theoretical abstraction makes a circular motion and ends up being thought of as the original form from which all the unruly practices of the world stem.[33] In this way the abstract becomes the ideal real, and ideal for reality. The encoding/decoding model constructed by Hall could thus be thought to create a similar argument, where the infinite ways of understanding and finding meaning end up in a finite and definite model for finding and visualizing it.

Where is Intention?

Since the encoding/decoding scheme theoretically puts its focus on the receiver and the perceived decoding and understanding of an image/text, a discussion concerning the intentions of the creator(s) or producer(s) is left aside. And so I want to bring forward the importance of intention in matters of meaning-making practices, because

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topics chosen and debated in this anthology so easily *present* themselves as true, simply as a reflection of how it is "out there". Such an approach carries epistemological implications, which are not really put in relation to the motives of the Centre for Contemporary Cultural Studies. This could be thought as a result of an unconsciousness concerning these motives, but put in the light of the school's ideological consciousness I find this rather hard to believe. One conclusion I draw from this is that the ideological base of the school seems to have been so self-evident for the researchers involved that it needed no further critical discussion.

32 See Storey's critique, in Storey: 2001, chapter 8.

33 See N. Katherine Hayles (1999), *How We Became Posthuman. Virtual Bodies in Cybernetics, Literature, and Informatics*, University of Chicago Press: Chicago & London, p. 12-13.

I find it too important to lose in a theoretical discussion on representation and image and/or text.

In Hall's text I find intention to function implicitly as a powerful reminder of the hegemonic code that exists all around us. Accordingly, intentions always to some extent partake in reinforcing and re-inscribing hegemonic meaning in image/text and other artifacts of culture. Yet interestingly enough, one implication of this form of reduction of interpretation and meaning-making, when there no longer exist endless decodings or interpretation possibilities, is that it holds on to the idea that there is an actual *producer* somewhere. This producer then has certain motives for producing a text or an image.

The notion is affirmed in Hall's theory, in the sense that it is the meaning and intention stemming from a producer, which is to be decoded by the receiver. In this respect the encoding/decoding scheme goes against the notion that the *content* of a production is created entirely by the beholder.

On the other hand, presuming to know the intentions of the producer(s) the way the encoding/decoding scheme does by way of a more implicit built-in precondition, seems to be a risky business. It would require a rather close engagement and discussion with the producer of a "cultural phenomenon" in order to try to find out her or his intentions and some of the motivations and the imaginations behind a production or creation. The encoding/decoding scheme thus retains some idea of a context of production, although its adherents seem to neglect to find the scheme a context of its own.

Intention in Receiver

Alongside Hall's scheme of decoding there seem to be theoretical stances interested in confirming the infinite ways of making meaning. Here the receiver finds herself or himself to be the focus and final tuning for locating and determining meaning within the image/text. The presumed *receiver* becomes the main category from where theoretical discussions arise, and where issues of presumed content in image/text are dealt with.[34]

The result of such a theoretical handing over of content to the receiver or user - where the responsibility for a presumed found and meaningful content in image or text for the largest part seems to rest with the receiver - leaves the intention and meaning-making of the producer(s) supposedly unnoticed. A disappearance of the producer(s), I think must be due to a theoretical disregarding of its importance in

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34 For a related discussion, see Joanne Hollows & Mark Jancovich (eds.) (1995), *Approaches to popular film,* Manchester University Press: Manchester & New York. Also, film researcher David Bordwell emphasizes that the beholder of a film does not passively filter the film, instead she/he actively creates meaning, and as I understand it, at least partly creates the content of the movie itself. See further chapter 3, "The viewer's activity" in David Bordwell (1985), *Narration in the Fiction Film*, Routledge: London. For a discussion on Bordwell's theory in a Swedish context, see Lars Gustav Andersson & Erik Hedling (1999), *Filmanalys. En introduktion, [Film analysis. An introduction]*, Studentlitteratur: Lund.

order to understand a piece of work more fully.[35] A focus on, or a total individualization of the receiver's meaning-making could indicate that the meaning-making of the producer in the production is reduced to being of little or no importance.

As a consequence making meaning of image/text has never been easier. Thus the receiver does not need to take into consideration the historically situated context in which the work has been produced or try to understand the producer(s) and her/his/their intentions in relation to this context. The British art historian, Michael Baxandall, opposes this kind of practice, insisting instead on the vital necessity to situate both the creator(s) and the created within a historically specific context in order to try sincerely to understand them, and to make meaning.[36]

I find it quite pressing to agree with Baxandall and to guard myself against the more omnipotent receiver by stating what I find to be an obvious requirement in all of this. If a producer did nothing, created neither form nor content, and ultimately had no notion of what to do and how to do it, there would be very little for a receiver to receive and try to make sense of. Putting a kind of ultimate responsibility for images on the receiver is deeply misguiding, in my view, and a rather too easy way out of questions of *accountability* when it comes to image/text making.

What a receiver-centred stance offers seems to be a practice of looking at the world through the usage of what Donna Haraway calls the "God-trick". In the case of Stuart Hall's models, I would say that this practice tends to end up within what Haraway regards as claims of *total universalism*, while a more receiver-centred stance pressing content as solely created by the receiver ends up claiming total *relativism*.[37] Haraway writes:

> Relativism is a way of being nowhere while claiming to be everywhere equally. The 'equality' of positioning is a denial of responsibility and critical enquiry. Relativism is the perfect mirror twin of totalization in the ideologies of objectivity; both deny the stakes in location, embodiment, and partial perspective; both make it impossible to see well.[38]

With my critique of Hall's encoding/decoding scheme I do not wish to insist that there are no grounds for theoretically distinguishing and critiquing the ideological and gendered filtering that imagery and texts undergo in western culture. What I do wish to insist upon is that this cannot be the only thing that is important to locate and visualize within images and texts, nor can it be thought of as the sole reason why images

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35 This seems to have been a great and perhaps grave issue for instance in Literary Studies, in the sense that it has been assumed that in order truly to appreciate and not smear or blur the text, "the author" and "the text" should be kept apart. Michel Foucault writes, "[m]an säger faktiskt (och det är också en mycket välbekant tes) att kritikens egentliga uppgift inte är att frilägga relationen mellan verket och författaren (…) ". See p. 80 for quote in the chapter entitled, "Vad är en författare?", ["What is an author?"], in Foucault (1994, 2008), *Diskursernas kamp, [The struggle of discourses],* selected texts by Thomas Götselius & Ulf Olsson, Brutus Östlings Förlag Symposion: Stockholm & Stehag.

36 Baxandall: 1987.

37 The terminology is Haraway's. See further in Haraway: 1991, p.191.

38 Haraway: 1991, p. 191.

and texts are being constantly created. Images, texts and objects are far more intricate things than some of these visualization techniques want to give them credit for.

Intention in Counter Images

Images and texts are dependent on human beings and their thoughts and practices in order to come to life and create imaginaries and understandings. Nevertheless, I do not think that images or texts can be reduced to being simply the result of countable and conscious intentions, or to being the sum of one, or many, beholder's thoughts. Images and texts are something more, and this is why I find them to be so intriguing. I want to return here to the question of accountability in image-making and to the necessity of trying to situate meanings, both created and found within imagery.

Feminist theorist Teresa de Lauretis brings forward the question of accountability in her critical discussions on cinema and the moving image. De Lauretis' argumentation I find is grounded in the belief that images and film are comprised and condensed reflections of reality, as well as being inducers of that reality. As I understand de Lauretis, the images of the motion picture both create and recreate gendered subjectivity, and consequently, what these moving images re-present become a crucial and pressing matter for feminist theory.[39]

Arguing for accountability in imagery-making is a way to try to put into question and shift the focus of what de Lauretis defines as a patriarchal visualization in image-making. The result of such questioning could or should lead to the creation of feminist counter-images. Interesting here is de Lauretis' more or less explicit theoretical pull to grab hold of the intentions of the creator(s) in making moving images. Doing so makes the discussion about the observer's gaze and meaning-making practices seem somewhat secondary.[40]

De Lauretis' argumentation could be thought of as somewhat circular in the sense that she takes as a prerequisite the gendered content of imagery. This type of circularity relates back to my discussion of Hall's theory, and to my own writing, and perhaps to all visual optics.

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39 See Teresa de Lauretis (1984), *Alice Doesn't. Feminism, Semiotics, Cinema*, Indiana University Press: Bloomington IN, and also de Lauretis (1987), *Technologies of Gender. Essays on Theory, Film and Fiction*, Macmillan Press: Houndmills, Basingstoke, Hampshire & London. There are several anthologies on feminism and film, see, for instance, Ann E. Kaplan (ed.) (2000), *Feminism and Film*, Oxford University Press: Oxford & New York, the anthology from Skriftserien Kairos (6) by Sven-Olof Wallenstein (ed.) (2000), *Feministiska konstteorier, [Feminist theories of art]*, Raster Förlag, and Shohini Chaudhuri (ed.) (2006), *Feminist Film Theorists*, Routledge: London & New York.

40 "The male gaze" was initially used by feminist film theorist Laura Mulvey in her now canonical texts from the 1970s, as a way to describe and analyse the pleasures of looking (scopophilia) and the objectification of women in Hollywood cinema. Mulvey's "Visual Pleasure and Narrative Cinema" from 1975, and "Afterthoughts on Visual Pleasure and Narrative Cinema inspired by King Vidor's Duel in the Sun (1946)" from 1981, are translated in Lars Gustav Andersson & Erik Hedling (eds.) (1995), *Modern Filmteori 2, [Modern film theory 2]*, Studentlitteratur: Lund, p. 30-43 and p. 44-54.

It is the underlying premise or intention of "theory" to guide the way through the world, and still somehow it is thought of simply as a reflection of that world.[41] I think it is possible to say that the type of stand de Lauretis brings forward is grounded in a more contemporary attitude toward images which relies heavily on the idea that (moving) images really are about one or another form of manipulation. These manipulations should be made *visible* in order for a change and a shift in visibility to begin.

One way of doing this de Lauretis suggests, is to create an opposition towards the objectification of women on screen - and perhaps in the prolongation also in the rest of society - via counter-images. These images with the intention of being counter-images should be grounded in a feminist positioning, and be of a *de-aesthetic* kind.[42] What could be problematic here is that the idea of de-aesthetization and counter-images falls under a more structuralistic approach to language and meaning-making, because it takes as a prerequisite that such images *are in themselves* oppositional. Such a view on the issue of inherent quality acts against the more post-structuralistic tone in de Lauretis text.

Yet, I think that what de Lauretis argues for is the need for the creator's thoughts to be put into the picture and into the image. If a creator spoke of having the intention to create counter-images, this should consequently be taken into account when reflecting upon and thinking about these images.

Somehow, there is still this latent danger of locking a certain meaning to an image, an object or a text. An intended counter-image is created within a specific context, and when taken out of this context the issue of what is counted as "counter" can be put in question. I think there is a danger in thinking that a receiver immediately should or could respond to the image in its intended way, whether it be oppositional or not.

When it comes to moving images and cinematic narration the question of what a counter-image constitutes becomes a rather difficult thing to discern. Even if a short passage or a still image in a film for instance is labelled a counter-image, it would perhaps not lead to such a categorization of the film as a whole.

As a summary of the issues de Lauretis raises, I believe there is a fine line between engaging in questions of accountability and determining the outcome of meaning-making in images, objects or texts. It is the line between, on the one hand, the notion and practice of intentionally created and therefore to some extent the intrinsic value in image, object or text, and on the other hand, the notion and practice of contextually

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41 To quote Baudrillard: "To be the reflection of the real, to enter into a relation of critical negativity with the real, cannot be theory's end. (…) What good is theory? If the world is hardly compatible with the concept of the real which we impose upon it, the function of theory is certainly not to reconcile it, but on the contrary, to seduce, to wrest things from their condition, to force them into an over-existence which is incompatible with that of the real." See chapter "Why Theory?" in Baudrillard: 1988, p. 97-101. For this quote p. 97-98.

42 De Lauretis opposes the mainly taken for granted classification and dichotomization of the so-called avant-garde cinema and the Hollywood cinema, arguing instead that what is presumed avant-garde is by no means a guarantee for a cinematic experience free of gender stereotypes and the male gaze. In this regard de Lauretis goes against Laura Mulvey's classification. See Mulvey: 1975, p.30-43, and Mulvey: 1981, p. 44-54 in Andersson & Hedling (eds.): 1995.

intertwined understanding and meaning-making which cannot simply be thought of as determined by large structural models of the world.

Image and Intention Situated

Perhaps it is the intertwinement of these two notions and practices that issues and harbours the need for accountability, and which makes it a necessity to situate the image, object or text and to speak about it from a certain place. As Donna Haraway writes, "[t]he alternative to relativism is partial, locatable, critical knowledges (…)".[43]

I believe that the basis for such situatedness is grounded in the epistemological understanding and practice that looking at the world requires not only an eye but a body as well. It requires a positioning in space and time which cannot be mistaken for "being nowhere while claiming to be everywhere equally".[44]

We need to be somewhere in order to engage in looking, interpreting, understanding and making meaning of the world around us. This situatedness somewhere is filled with imaginaries, thoughts, practices, people, objects, texts and images. To try to go around or circumvent situatedness in order to construct claims of objectivity I believe is what the "God-trick" is all about.

Throughout this text I have been discussing image and text as representations and as meaning-making practices. In order for imagery neither to succumb to clear cut decoding nor to be an endless play of signifiers, the practice of looking and understanding needs to be situated in order to become meaningful. To use one of Haraway's analogies, it is to speak partially, and not from a distance.

I believe this could loosen the grip on imagery and imagination that the types of theories concerned with hegemonic thought and content tend to have. Even though this type of *visibility* is crucial for critical thinking, it comes with a certain type of invisibility, as all visual optics does. Putting forward a discussion on the need for accountability, and accountability through situatedness, I find goes in line with Baxandall's argumentation on intention. It is to insist on the necessity to situate both the creator(s) and the created within a specific context, and from that context try to engage in understanding and meaning-making.

Finally, the introductory quote by Baxandall, that "[w]hat one offers in a description is a representation of thinking about a picture more than a representation of a picture",

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43 Haraway: 1991, p. 191.

44 From the way I understand Haraway's texts this implies that it is not the usage of a certain "feminist method" that brings forward gender critical research, rather it is manifested in the ontological and epistemological practice. See chapter 9 on partial perspectives in Haraway: 1991 See further Donna J. Haraway (1997), *Modest_Witness@Second_ Millenium.FemaleMan©_Meets_ OncoMouse™*, Routledge: New York & London, and also Haraway (2001 (1996)), "Det beskjedne vitnet: Feministiske diffraksjoner i vitenskapsstudier" in Kristin Asdal, Brita Brenna & Ingunn Moser (eds.) (2001), *Teknovitenskapelige Kulturer, [Cultures of technoscience]*, Spartacus Förlag: Oslo, p. 189-206, p. 369-70.

can work as an analogy to my discussion in this essay.[45] With this I mean to say that in a culture of visual persistence it is crucial to bear in mind one's own visual optics, and not take it to be simply a re-presentation of someone else's. By engaging in these types of practices, there will perhaps be more delicacy when it comes to matters of making meaning.

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45 Baxandall: 1987, p. 5.

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Part III. Epilogue

Contribution

The objective of the licentiate thesis has been to discuss aspects of knowledge production in relation to the epistemological position of feminist technoscience. A feminist technoscience stance emphasizes the contextual and the social embeddedness of both research and technology, and so my focal point has been on *how the relation between the subject as the producer of understanding, and the surrounding social context can be perceived, and how this in turn is related to and found relevant to the production of knowledge.*

The main arguments of the licentiate thesis are articulated in three essays which revolve around the epistemological questions of if and how it is possible to gain and attain knowledge, and how its value can be ascertained. Throughout the essays I have tried to illustrate some of the aspects of and potential difficulties in the production of knowledge and understanding, which I find is relevant to the type of knowledge production categorized by Michael Gibbons as being (of) Mode 2.

The title of the licentiate thesis, *A Sight/Site for Transparency or Opacity*, indicates the duality between the belief that there can be actual transparency in acts of knowledge and research and the belief that knowledge production is far too opaque a matter to describe clearly or to make intelligible.

This duality has consequences for how context is understood and seen as relevant to knowledge and understanding, in that it offers different ways to legitimize context as a way to knowledge. What I have tried to argue for throughout the three essays is the inevitability of opacity in matters of understanding, knowledge production and situatedness, and the potential danger the notion and practice of transparency could have for the same.

I have argued that the notion of transparency presupposes that everything can be decoded, made clear and thus understandable. This applies both to the researcher's own pre-understandings and to what context is thought to actually do to the researcher. In essay II I argued that such an undertaking is tangent to the idea and practice of objectivity, albeit altered so as to fit within Haraway's notion of situatedness and contextual understanding. As a consequence there could be an overly confident attitude amongst researchers towards simply telling one's own conscious notions about doing research and by that account making legitimate both themselves and their research.

To work from an understanding of opacity does not mean to diverge from matters of accountability. On the contrary I would argue that accountability and situated knowledges in Haraway's terms are ways simultaneously to recognize both our ability for knowledge and understanding and our inability to make context and knowledge production clearly decipherable to ourselves, or to anybody else.

This is, I find, what lies within the poststructuralist notion of language and reality, and where Baudrillardian language and thought-figures could meet a feminist technoscience stance dedicated to accountability and situated knowledges.

My primary issue of concern in the licentiate thesis has been to discuss and further understand what context can mean in research and in the epistemological stances of feminist technoscience. What situatedness could point the way to, elucidate or make clearer in the relation between the producer of knowledge and the societal context is also a matter related to accountability. To problematize the notion of context is vital in relation to knowledge production and to situatedness, in order for context not to end up being either a too material matter or an all encompassing one. Such extremes could eventually make the notion of situatedness redundant or imploding.

This means feminist technoscience as a field should be open for ongoing discussions about its own epistemological positioning and methodologies, especially if situatedness is to be regarded as an epistemological precondition for feminist technoscience research and knowledge production.

These issues are touched upon in essay I, *"Meaninglessness in the Desert of the Real. Arguing for a Form of Meaning and Unpretentious Objects"*, from the point of view of what the poststructuralist notion of language can mean for knowledge and contextual understanding. In relation to knowledge production, the second essay, *"Function as the Objective Form. An Essay on Making Things Transparent"*, adds some doubt to the notion of research as societal utility stressed by those favourable to a Mode 2 conduct in research. I try to point to the difficulties in ascertaining both what is regarded as utility and what is seen as valuable research, knowledge or understanding.

In the third and final essay, *"Notes on Representation and Visual Optics"*, knowledge is discussed in relation to representation in terms of images, which could be either analogue or digitally produced. The issue here is how understanding can be made and be understood from such a multifarious sign and space as representation, and how understanding representation requires some sort of pre-understanding of the real or of reality. Thus I argue for the urgency of making the image matter beyond the borders of being either a clear representation of reality or an empty presentation favouring individualized understandings.

To discuss representation in relation to knowledge production is an attempt to come closer to how understanding and context are interrelated to each other and are part of an individual, a symbolic and a more structural level.[1] Acknowledging these levels when doing research is vital, in order not to forget or further cement structural power relations. This, I have argued, should be a crucial part of accountability when doing research.

To believe that the societal structural level does not affect and have impact upon the symbolic and the individual level, I would argue, is part of an ideological misjudgement, which results in making power relations seem dispersed or non-existent. The ideological foundation of epistemological understandings should therefore be discussed, because it has deep implications for what is perceived as valuable knowledge and valuable ways to get knowledge, as well as what purposes this knowledge and research fulfil in society.

These issues, in my view, should be of particular importance for contemporary society, which seems to be characterized by an increasing dependence on both research and technology done from (within) a Mode 2 conduct. Accordingly, the societal demands to make the connections between knowledge, research, technology and political incentives more evident should likewise increase. In the licentiate thesis I have attempted to address some aspects of this urgent societal issue from an epistemological and theoretical perspective, which I hope could be of relevance to research on knowledge production and research done from a feminist (techno)science stance.

Following from this, one aspect of knowledge production related to the epistemological position of feminist technoscience I would like to study further is how sighting/siting boundaries seems bound to be a risky practice, but also a necessary one in matters of being accountable and situated.

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1 My attempt with the three essays can be seen in relation to the three continually ongoing processes in society where gendered power relations are performed and played out. Put forward by feminist philosopher of science, Sandra Harding, *the symbolic level, the structural level and the individual level* are not secluded or impermeable to one another, rather they are deeply dependent on and intertwined with one another. Harding: 1986, especially p. 17-18.