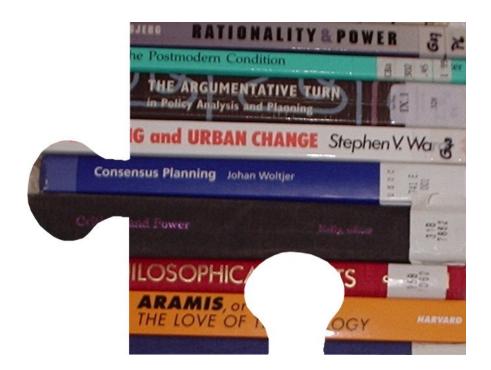


Power, discourse or something else

Contributions of philosophy to spatial change and planning





Ritske Dankert

Power, discourse or something else

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"No one has ever been modern. Modernity has never begun. (...)

Hence the hint of the ludicrous that always accompanies postmodern thinkers;

they claim to come after a time that has not even started!"

Bruno Latour

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Master Thesis in Spatial Planning

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Preface

In 2002 I started two studies at the University of Groningen: philosophy and spatial planning. For the latter I wrote this thesis. Still, there is a lot of philosophy in it. My choice for philosophy in 2002 was inspired on the belief that discussion between different philosophical traditions does also effect spatial planning. Thanks to several courses in planning theory at the University of Groningen and the Humboldt University in Berlin I was able to learn more about the relation between philosophy and spatial planning. Using the literature from different courses in both disciplines I was able to write this thesis.

There are some people I have to thank for their great help during my research. In the first place I want to thank Tom van der Meulen for the critical questions on drafts of this thesis. Answering these questions was not always simple, but they definitely helped me to write a better thesis than I could have done without them. In addition I thank Gert de Roo, Deike Peters and Gerd Walter for teaching me in planning theory. For helping me answering some question on the work of Foucault, Rorty, Habermas and Latour I thank René Boomkens and Hans Harbers of the Faculty of Philosophy of the University of Groningen. For reading and commenting on (parts of) drafts of this thesis I would like to thank Lorna Kirkpatrick, Tom van der Meulen, Johan Sterrenburg, Anouk Filé, Gert de Roo and Koos van Dijk.

This thesis offers a view on spatial change and planning from a philosophical point of view. From this viewpoint alternative theories on spatial change can be developed. Planning itself is an invention of modernism. With this thesis I try to show how planning can survive even when non-modern philosophy is taken as the leading fundament.

Ritske Dankert Groningen, October 2005.

Summary

Since the late 1990s critical theory has been criticized more and more. Being the most important fundament for communicative or collaborative planning theory this may mean that we have to look for other philosophical fundamentals to underpin an alternative theory on spatial planning. Even better is to talk about spatial change because also the word planning itself is contested.

In this thesis I try to formulate the fundamentals of an alternative theory on spatial change which meets the criticism on contemporary critical theory and communicative and collaborative planning. Therefore it is necessary to find out which philosophical fundamentals meet the criticism on Habermas' critical theory, and how they can be translated into a theory on spatial change. To reach this goal I have done literature research on the work of both philosophers and planning theorists.

Since the late 1970s modernistic philosophy with its focus on progress and feasibility finds itself in a crisis. By establishing a theory of communicative action, Jürgen Habermas tried to safe the project of modernity. He believes we should take different criteria into account in order to reach mutual understanding. In this way communicative rationality can replace the goal-means rationality of earlier modernism. However, postmodern philosophers have argued that rationality as a whole cannot be hold anymore. They have shown how common knowledge can differ from time to time. In history we can trace moments where one kind of common knowledge suddenly is replaced by another one. Other philosophers have searched for a synthesis of the opposing theories, which agrees on the impossibility of finding stable fundamentals but is not relativistic.

After the 1970s in spatial planning theory we also see a shift toward another view on spatial issues. In planning, it is the theory of communicative action which gains the most influence. Communicative and collaborative planning has become the leading theory in the 1990s. However it has been criticised more and more for its normativity. A small minority of spatial planners has also done some theorizing based on postmodern philosophy. Others have searched for a theory that incorporates the best of both worlds. Synthesising opposite theories should lead to a more adequate theory on spatial change because it merges the best of two opposite theories into one new theory.

In philosophy Bruno Latour did synthesize pre-modernism, modernism and postmodernism, whereas planners have not taken pre-modernism into account already.

Therefore it could make sense to use the ideas of Latour to explain spatial change. Dropping the subject-object antagonism is one of the fundamental parts of his theory. When we study spatial change, it is neither social nor technical aspects where we have to look at. Fact and opinion do not exist as autonomous phenomena. In the new Constitution it are associations of humans and non-humans who are going through a process before they become instituted as actors in the collective. Scientists, politicians, economists and moralists contribute to this process. In the field of spatial change, planners can take the role of one of the four disciplines.

Two spatial issues are taken as examples to see how the theory developed by Latour could work out in practice. In the first place we can have a look at the Aramis case. Aramis was an innovative form of public transportation which had to be developed and implemented in Paris. However, the project failed. The investigation on the cause of death of Aramis does not lead to social or technological elements. It turns out that Aramis was taken as a fact already when it was only an idea. There has never been a discussion on the essence of Aramis. That was why the project was terminated. A second example is the development of the through station of Stuttgart and the surrounding area. The project is still underway. However it seems to get on very well. The proposition of the plan Stuttgart 21 is running through the process as described by Latour.

The most important conclusion of the research presented in this thesis is that the philosophy of Bruno Latour can be used in order to establish a theory on spatial change. This theory meets the criticism on modernism. At the same time we do not need to give up planning as a whole. Latour's theory is a synthesis of different opposite theories. It allows us to find out how humans and non-humans influence each other. Furthermore it can be taken as a framework in which both discourse and power can be used to explain spatial change.

Contents

PREFACE	2
SUMMARY	3
CONTENTS	5
1. INTRODUCTION: ALTERNATIVES TO CRITICAL TH	EORY7
1.1 THE ELMAUER SPEECH	7
1.2 New theories to explore	9
1.3 Purpose and research questions	9
1.4 METHODOLOGY	12
1.5 Spatial change: A Preliminary Definition	13
2. MODERNISM, POSTMODERNISM, SYNTHESIS	15
2.1 MODERNISM AND ITS CRISIS	15
2.2 OPPOSITE THINKING: HABERMAS AND FOUCAULT	16
2.2.1 Habermas' theory of communicative action	16
2.2.2 Foucault's archaeology of knowledge	18
2.3 SYNTHESIS: RORTY AND LATOUR	20
2.3.1 Rorty: liberalism without rationality	21
2.3.2 Latour: the non-modern alternative	23
3. SHIFTS IN PLANNING THEORY	26
3.1 FALUDI AND PLANNING EUPHORIC	26
3.2 THE FALL OF TECHNOLOGIC FEASIBILITY IN PLANNING	27
3.3 THE ARGUMENTATIVE TURN	29
3.4 OTHER DIRECTIONS IN PLANNING THEORY	31
3.4.1 Foucault in planning: the postmodern alternativ	re31
3.4.2 Synthesizing opposing planning theories	33
3.5 PHILOSOPHY AND SPATIAL CHANGE	35
3.5.1 The need for a positive theory on spatial change	e36
3.5.2 Syntheses in spatial change and philosophy	37
4. CHANGING SPACE IN A NON-MODERN CONSTITUT	TION 42
4.1 THE USABILITY OF LATOUR IN PLANNING	42
4.2 GETTING RID OF METAPHYSICS	43
4.3 THREE DIVISIONS IN THE WORLD WITHOUT METAPHYSICS	44

4.4 THE PROCESS FROM PROPOSITIONS TO ACTORS	46
4.5 SKILLS FOR SEARCHING A COMMON WORLD	50
4.6 What can planners do?	55
5. FROM PAPER TO PRACTICE: SOME EXAMPLES	58
5.1 Aramis	58
5.2 STUTTGART 21	62
6. PLANNING SPATIAL CHANGES	67
6.1 CONCLUSIONS AND DISCUSSION	67
6.2 PLANNING IN THE NEW CONSTITUTION	70
BIBLIOGRAPHY	72

1. Introduction: alternatives to critical theory

Critical theory is dead. That, at least, accounted the German philosopher Peter Sloterdijk (1999). In this thesis therefore I will propose alternative philosophical fundamentals for creating a new theory on spatial change. In this chapter I will write about the background of Sloterdijk's criticism in paragraph 1.1. In the second paragraph I will explore the planning problem this criticism will result in. In paragraph 1.3 the purpose and research questions, which take a central position in this thesis, will be discussed. In the fourth paragraph I will say a word on the method. In the last paragraph of this chapter I will give a preliminary definition of the term spatial change.

1.1 The Elmauer speech

Planning of spatial changes based on scientific facts is outdated since the sixties of the last century (De Roo 2003:108). Since the early 1990s it has been replaced by planning through debate. Patsy Healey has become one of the most important authors writing about communicative and collaborative planning. Her theory is for the biggest part built upon the philosophical work of Jürgen Habermas (Almendinger 2002:182). Generally speaking we can say that planning in the 1960s dealt with objects, whereas communicative planning deals with subjects.

Planning through debate is now the most popular way of looking at spatial planning. De Roo (2003:112) talks about a shift from functional rationalism to communicative rationalism. Fischer and Forester's *Argumentative turn in Policy Analysis and Planning* (1993) became a symbol of this shift in the English and German speaking part of Europe and America (Peters 2004:9).

However, both critical theory and the theory of planning through communication and cooperation have been criticised more and more in the last years (Almendinger 2002:65). In philosophy this came to a climax in 1999 as Jürgen Habermas and Peter Sloterdijk were in the middle of a discussion on critical theory. After Habermas accused Sloterdijk of being a fascist because of some misunderstood passage in Sloterdijk's *Elmauer speech*, the latter reacted with a letter in *Die Zeit*. In this letter Sloterdijk gave his vision on Habermas' critical theory in a very sarcastic way.

In the first place, Sloterdijk (1999) gives Habermas a compliment for finally breaking out of his own anti-fascistic constructions which were presented as 'too good to be true' in Habermas' theory of communicative action. Sloterdijk claims that Habermas gives an exemplary example about how power has influenced the debate between the both clashing philosophers. According to Sloterdijk Habermas used his contacts among journalists to set up a hate-campaign against him. By doing this Habermas acts in disrespect of his own theory of communicative action. Furthermore Sloterdijk thinks that Habermas is wilful misreading Sloterdijk's speech so that he can attack Sloterdijk on it.

According to Sloterdijk (1999) the theory of communicative action as being part of critical theory is a *hyper moral* reaction from children of Nazi-Germany. Now Sloterdijk sees a new generation that is going to take back the freedom to think about the future, without feeling the need to respect the criteria of Habermas' critical theory. Therefore Sloterdijk thinks there is only one conclusion possible: critical theory is dead. This hypermorality has also its implications for planning theory based on Habermas' work. In this kind of planning theory we can also determine restrictions to communication. For example, Forester (1989:144) did set up 'heuristic questions' as a restriction to the influence of power on spatial change.

What if Sloterdijk is right? What if critical theory is really dead? If it is, we cannot use Jürgen Habermas' philosophy anymore as one of the most important fundamentals for communicative and collaborative spatial planning.

When we look at spatial planning practice in The Netherlands I believe we cannot say that planning through communication and collaboration is getting outdated. In fact the opposite is happening. In The Netherlands *omgevingsplanning* (integrated regional planning) can be seen as an example of turning communicative planning theory into practice (De Roo & Schwartz 2001:25-27). Although it is important to know what the leading planning policy is at the moment, it cannot be disregarded that on a theoretical level there is a lot of criticism on communicative and collaborative planning. Different authors are signalising a revival of the planning theoretical discussion (e.g. Selle 2004). Because of this serious and fundamental critic it makes sense to find out what is wrong and how it can be changed.

1.2 New theories to explore

In this thesis I will not go further into detail about the question whether critical theory is dead or not. However I will put forward the hypothesis that critical theory and the planning theory based on it have become criticised more and more since the late 1990s. Rather than focusing on this critic, I want to look if there are any good alternatives to critical theory that can be used to explore an interpretation of the spatial change process and the role of urban planners that has the potential to meet the criticism on planning theory based on critical theory.

Healey (1993), and so Forester (1993), do not plead for a communicative planning theory based only on Habermas' theory of communicative action. Healey took also influences of Foucault, Bourdieu and studies of planning practice into account (Healey 1993:246). However, she is searching for a way to put Habermasian theory into planning practice.

In later publications by other planning theorists there are more obvious links to Foucault (Peters 2004:10). Bent Flyvbjerg, for example, is a planning theorist using Foucault as philosophical background for his work. Other authors are searching for the complementary of power and discourse (Reuter 2000) or dualism of facts and opinions (De Roo 2003).

For the biggest part however, communicative planning theory is still built upon the philosophy of Jürgen Habermas. Therefore the criticism on Habermas' work does also affect communicative planning theory. From this, I think, one should draw the conclusion that it is worth searching for alternative philosophical fundaments for a theory on planning and spatial change.

1.3 Purpose and research questions

From the conclusion in the last paragraph to the purpose of my research is just a small step. The purpose of my study is the following: formulate the basic direction of an interpretation of spatial change and planning based on a philosophical fundament, which meets the criticism on contemporary critical theory and communicative and collaborative planning theory.

The research questions, which are explicated in the following pages, come together around the following central question in this thesis: How can philosophical fundamentals, which meet the criticism on Habermas' critical theory, be translated into a theory on spatial change?

What is the message Habermas wants to deliver in his theory of communicative action?

First of all I want to do a literature search on what Habermas wants with his theory of communicative action. What does he mean in the first place? And what is the purpose of this theory? Especially elements that are interesting from a spatial point of view will be examined. To do this I will use primary literature (e.g. Habermas 1980 and 1987) and secondary literature (e.g. Rajchman 1991 and Doorman & Pott 2002) about Habermas' theory of communicative action. This question will be addressed in chapter two.

Which alternatives for Habermas' theory of communicative action have been suggested by his critics?

A lot of philosophers have criticised Habermas' theory of communicative action. As Habermas stands in a post-war tradition of German philosophy, in this thesis will be looked at the Anglo-American and French philosophical traditions to find alternatives. Habermas (1987:3) himself already identified Richard Rorty as one of his critics. Michel Foucault is also a philosopher who has been in debate with Habermas (Kelly 1994:1). Since the philosophical crisis in the 1970s the three philosophical traditions from Germany, France and Anglo-America are more and more influenced by each other (Rajchman 1991:4). Bruno Latour is one of the philosophers who are not bound to one of the philosophical traditions. He also presents an interesting alternative on Habermas' theory. In this thesis the criticism and alternatives presented by Richard Rorty, Michel Foucault and Bruno Latour will be examined. Therefore, there will be done some literature search in primary and secondary literature. I will also interview philosophers from the University of Groningen who are acquainted very well with the work of the above-mentioned four philosophers. The result of this will be presented in chapter two.

How has the theory of communicative action been interpreted, changed and used by planning theorists?

Before we can use critics of Habermas to as fundamentals for an alternative planning theory, we have to find out how big the influence of Habermas is on communicative planning theory. The most important authors who developed communicative and collaborative planning theory are Judith Innes, John Forester, Jean Hillier, Patsy Healey, Charles Hoch and Seymour Mandelbaum (Fainstain 2000:473). In the German-speaking part of continental Europe are also some interesting planning theorists working on this kind of planning theory. Among others, I think about Klaus Selle and Wolf Reuter. In The Netherlands De Roo is one of the authors who write about Habermas and the communicative and collaborative planning theory based on it. For answering the third research question I will use the above-mentioned authors, and other authors found in bibliographies and library databases. In chapter three I will present the answer to the third research question.

How can alternative philosophical fundamentals be used in order to get an alternative theory on spatial change?

When I know what alternative philosophical backgrounds are available, and when also the use of these philosophies in contemporary collaborative planning theory has been searched out, the question for an alternative theory on spatial change can be asked. In the first place, I will use the alternatives of Flyvbjerg and Richardson. Than I want to answer the question on how the philosophical fundaments, which have not been integrated in collaborative and communicative planning, should be translated into an alternative theory on spatial change. This will be done in chapter four. How definite the alternative theory on spatial change will look like, depends on the degree of specificity of the philosophical fundaments. The translation process will be done also based on an interview with an expert on these alternative philosophical fundamentals.

Can this alternative theory on spatial change explain practice?

I agree on Selle's argument that contemporary planning theorists do not always base their theories on empirical material. However, if they do so, it's often only their own research (Selle 2004:159). I agree with Selle that it is important to check the usability theories on spatial change by looking at practice. On the other hand: the goal of this thesis is to find an alternative theory on spatial change in the first place. What I will do is look at two case studies. However, I will not offer a final conclusion to the question of implementability of the theory. This is impossible as I am planning to look at only two case studies done by others.

Case studies on spatial issues can by found by literature search. The French philosopher Bruno Latour presented such study in his book *ARAMIS*, or the love of technology (1996). Because this is a case study done by a philosopher, it could be easier to see the relation

between philosophy and spatial issues by using his case study. Therefore this case study will be the first of two case studies I am going to examine.

However, we should not make it too easy by only taking case studies done by Latour into account. For every theory there can be found some kind of explanation in practice. That does not make it true. To strengthen the argument I choose to examine a second case study that should be done by someone who does not necessarily agree on the alternative theory on spatial change presented in chapter four. For this reason I have chosen the Stuttgart 21 case, examined by Wolf Reuter (2001). Both examples will be presented in chapter five.

Results

Finally, the results of the research will be examined in chapter six. I will also discuss the meaning of the conclusions that can be taken from the research.

1.4 Methodology

Before I start to research I have to say a word on the method. In this paragraph three important choices will be addressed.

In the first place, I have chosen to use philosophy as a source of inspiration in my search for alternatives to contemporary planning theory. The reason for using philosophy finds it source in the fact that communicative planning has a relation to the philosophical work of Jürgen Habermas. At the same time there are not many planning theorists working on alternatives based op other philosophies (Peters 2004). However, in philosophy there are many alternatives to Habermas' work presented and discussed. This is the reason I believe that it could be useful to find out what these alternative philosophies could say about spatial change. This should not mean that theories on spatial change should always find their fundaments in philosophy. However, I believe that it could be a good source of inspiration. Whether philosophy is indeed useful or not, I can only find out after I have done my research.

When I speak about alternative theories, that means that I presume that there is more than one theory that can explain spatial change. This goes back on Kuhn (1970), who has showed that different theories (I will treat theories as paradigms in this thesis) are followed up by each other. As Kuhn states, paradigms are not about truth, but only about

describing the world in such a way that it fits best to the problems we face. Therefore my research cannot be about finding a theory that better describes reality. I will only search for a theory that has the potential to explain spatial change in such a way that we can use it to understand spatial change better. As Lakatos argues, paradigms can only be examined in one way. That is the question which paradigm can best make us understand practice (Van den Bersselaar 2003).

Unfortunately I cannot examine all possible philosophical theories, since it would take several years to list them and try them in practice. After finishing such a research I would be an old man. Furthermore, in the meantime new philosophical theories would have been written down. Therefore I need a theoretical means which could help me to find out which philosophical fundamentals have the potential to be a successful paradigm that can explain spatial change. In this thesis I use the notion of synthesis. When we make a synthesis out of opposite theories, this synthesis may carry the best of both theories in it. I will use the Hegelian definition of synthesis. This means that the opposite theories have to be *aufgehoben* in favour of the synthesis. A thesis and an anti-thesis are *aufgehoben* when they are preserved, abrogated and brought to a higher level (Doorman & Pott 2002:81). Borrowing this definition from the work of Hegel means that I aim to do more than just put two opposite theories together. The opposite theories should be abrogated and preserved at the same time. That means we really have to find something new: a new theory, a new paradigm. By the *aufhebung* of opposite theories we can find the new paradigm that we may need.

1.5 Spatial change: a preliminary definition

In the text above I use the terms planning and spatial change. Contemporary theory on spatial issues has claimed the name *planning theory*. Further on in this thesis I will use the term *(theory on) spatial change* when talking about alternatives for contemporary communicative and collaborative planning theory.

Spatial Change: why to use?

I have the following reasons for so doing instead of speaking about *planning theory*. In the first place the term *planning theory* is not used in a consistent way amongst planning theorists. Selle (2004:150) concludes that there is confusion among planning theorists about the central theme of the scientific community. For a sense making communication this confusion should be overcome. Oren Yiftachel (1999; quoted in Selle 2004:147) puts

it like this: "the chasm between planning theorists exists not only about the 'best' paradigm, but about the very meaning of the most fundamental entities in our discipline, namely planning and theory."

In the second place there is criticism on contemporary communicative and collaborative planning theory and its philosophical fundamentals. This also has an influence on the term *planning* itself. Postmodern thinkers are attacking rationality in both modernism and Habermasian critical theory. If we want to meet this criticism we cannot talk about *planning* anymore. The use of this term presumes that only spatial planners do have an influence on the spatial environment, or at least that they have more influence than others have. I do not want to exclude other influences on the changing space before the research has even started. Furthermore the use of the term planning does presume (some degree of) certainty about the effects of planning. (Teunisse 1995). However, it is clear that planning can have uncertain outcomes (Van der Meulen 1995:15).

Spatial change: what does it mean?

Changes are the result of a *process*.¹ This is also the case for spatial changes. In scientific studies, the story is always about the process in which changes are 'made'. In dimensions of time and space different processes can run beside or through each other. In these processes, not only the people we use to call planners but every human and non-human could have an influence. I do not want to exclude anyone or anything before the research has even started. It is not my aim to change practice with this definition. I do aim to find a theory that describes what happens in practice in such a way that we can understand the problems we are facing in this practice.

What about planning?

Only after finding a theory on spatial changes we can say whether planning could influence spatial changes or not. And only if it can, we can say something about its role. We can make this clear on the problem of the education of children. When we do not know whether the education has any influence on children at all, it is useless to theorize about the best way to educate children. Therefore, I will only start talking about the role of spatial planners, when we have made clear that they do have an influence on the state of the spatial environment. However when they do, and I would not be surprised if that is the case, I will highlight their role.

¹ See for example the processes described by Flyvbjerg (1998), Reuter (2001) or Latour (1996).

2. Modernism, postmodernism, synthesis

In this chapter I want to introduce modernist philosophy since Kant and Marx, the philosophical crises in the 1970s and the reactions on this crisis in the 1980s in Germany, France and Anglo-America. In the last paragraph the philosophy of Bruno Latour will be introduced. I will suggest that Latour could be the philosophical synthesis, which we can also use in spatial change theory.

2.1 Modernism and its crisis

It's not easy to put a date on the beginning of philosophical modernism. The modernism, which technical rational planning theory was based on, can be seen as a process that started with the Enlightenment. In this thesis the work of Immanuel Kant will be seen as the beginning of modernism. As Kant (1784) puts it, Enlightenment is man's emergence from his self-incurred immaturity. When people start to reason in public and can openly express criticism on the state of the world there can be reached progress towards a world in which people are not only immature machines, but free men who are treated in a way human should be treated (Kant 1784). Another philosopher whose work can be seen as the beginning of modernism is Karl Marx. He emphasized a more pro-active philosophical approach. In his *Thesis on Feuerbach* Marx concluded that "the philosophers have only interpreted the world in various ways; the point, however, is to change it." (Marx 1845).

After World War II the German philosopher Adorno begins to criticise, what he called, the misunderstood rationality in the Enlightenment. According to Adorno the rationality of the Enlightenment had been reduced to goal-means rationality (Doorman & Pott 2002:83). Therefore it became possible that the Nazi's used the rationality of the Enlightenment to kill millions in a technical rational process.

Adorno was one of the first philosophers who have criticised the Enlightenment from within the tradition. He tries to *demystify* the definition of Enlightenment rationality (Doorman & Pott 2002:83). Adorno believes that rationality becomes a myth when we forget that the identification by defining the world leads to a situation in which the original (not identical) is reduced to what it is in a general sense (Doorman & Pott 2002:84). In other words: the particular is not paid attention to. The general is all what counts. Adorno emphasizes *identificational thinking* that takes this unavoidable reduction into account.

Although Adorno's philosophy became very popular in the 1960s and 1970s this popularity did not last (Doorman & Pott 2002:77). However, criticism on modernity did not disappear. In Germany, France and Anglo-America different philosophers have criticised modernism in different ways. According to Rajchman (1991:4), Michel Foucault in France, Jürgen Habermas in Germany and Richard Rorty in America have criticized modernistic philosophy. Because of the fact that the debate is now about philosophy itself, we can say that there is a crisis in philosophical thinking. In the late 1970s and the 1980s of the last century philosophers from all over the world had at least one thing in common. After they had begun reading each others work more and more they came to the conclusion that the philosophical backgrounds in Germany, France and the United States were incompatible with each other. The different philosophy was born.

2.2 Opposite thinking: Habermas and Foucault

Many different philosophers have found different approaches meet the critics on modernity. In this paragraph Jürgen Habermas and Michel Foucault will be introduced. I will argue that Habermas and Foucault can be seen as opposite thinkers. Habermas wants to save the project of modernity, whereas Foucault's work has more postmodern characteristics.

2.2.1 Habermas' theory of communicative action

First I discuss Habermas' theory of communicative action. Habermas' work became important for planning when planning theorists in Great Britain began to use his theory of communicative action to develop a communicative approach for planning.

According to Habermas, the crisis in philosophy does not mean that modernism should come to an end, although he admits the existence of this crisis. Habermas believes that the project called modernism is unfinished. Modernism should however learn from its own faults (Habermas 1980).

Habermas (1980) follows Max Weber when he says that the Enlightenment has led to a differentiation of the cultural modernism between science, morality and art. Postmodern philosophy wants to break through this differentiation (Habermas 1980). Habermas believes we should stick to the differentiation between the three cultural value spheres.

By learning from failures, the project of the Enlightenment can be saved, Habermas believes. Communication is essential here because of the relation between rationality and communication (Habermas 1987:16). To make it possible to deal with rationality, Habermas has set up his theory of communicative action.

Habermas is often described as the most important representative of the second generation of critical theory. In emulation of Adorno and Weber, Habermas believes there are different types of rationality. He differentiates between cognitive-instrumental rationality and communicative rationality (Habermas 1987:28). With the introduction of communicative rationality Habermas is going further than Adorno, as the latter only differentiated between two forms of cognitive-instrumental rationality.

At the beginning of his book, Habermas (1987:28) defines communicative rationality as *zwanglos* (free) communication that is focussing on achieving, sustaining and reviewing consensus that rests on the intersubjective recognition of criticisable validity claims. Further on he defines the term more precisely (Habermas 1987:114). In this definition communicative rationality is: firstly, the processes by which different validity claims are brought to a satisfactory solution. Secondly, it is about the relations people have to the world when they choose to use the validity claims for their expressions.

Until now I have only spoken about communicative rationality. Habermas (1987) however develops a theory of communicative action. Habermas calls actions communicative when the actors base their actions on Akte der verständigung (acts of reaching understanding) (Habermas 1987:385). The actors should only try to reach their own goals when it fits into the Situationsdefinition (situation definition), which is accepted by all participating actors. In that sense the debate on how to formulate a common Situationsdefinition is an important part of communicative action. Communicative actions can be distinguished from instrumental actions and strategic actions (Habermas 1987:384)

Habermas believes that when we act in a communicative way, it is impossible not to take into account three specific criteria. Actors who are acting in a communicative way do always take these into account. In the first place this is about truth. Statements should be true (Habermas 1987:149). In the second place statements should be 'right' in relation to the normative context in which they are used. This is called the validity claim of legitimacy. In the last place, statements should be meant in the way there expressed (truthfulness or sincerity). Forester (1989:144) has used a variant of these criteria from earlier work of Habermas to set up heuristic questions for planning (see also paragraph

3.3). When people take the criteria into account, an ideal speech situation would emerge. It would mean that power-relations do not influence the result of the deliberations. However, this is only the case when people act in a communicative way rather that in an instrumental or strategic way.

The theory of communicative action was set up by Habermas (1987a:583) to clear up the normative foundation of a critical theory of society. This may sound a bit paradoxical. Criticizers of Habermas have said this is like trying to make truth of something that is normative. Habermas however sticks to his conclusion that we should leave the technical rationalism in favour of his theory of communicative action to save the project of modernity (Rajchman 1991:9). Habermas believes that the evil of German fascism has shown that subject-centred reasoning is dangerous. This kind of reasoning could occur when there is an economic crisis in a society which is focusing on goal-means rationality (Habermas 1987a:563-567). It is important to mention this, because it shows that Habermas wants something to change in reality with his theory. It shows that Habermas makes the normative statement that we have to act in a communicative way to avoid the danger of social disintegration and the developing of dictatorial states. Habermas accuses French philosophy of developing such dangerous philosophies. Rajchman (1991:10) concludes that Habermas wants to show the French how they can become liberal rationalists. Habermas tries to save the modernity of Kant by giving humans the possibility to speak in a context that is free of power. In the theory of communicative action humans are treated as ends in themselves. As we can derive from the work of Adorno, it was a big mistake that modernity was reduced to goal-means rationality. With his theory of communicative action, Habermas has tried to save the original definition of enlightenment by Kant.

2.2.2 Foucault's archaeology of knowledge

Michel Foucault was one of the philosophers who are continuously in debate with Jürgen Habermas. The work of Foucault has already been used by urban planners like Bent Flyvbjerg and Tim Richardson (Peters 2004:10). Planning theorists have focused on Foucault's analysis of power. However Foucault developed a philosophy on more than power relations alone. It is also about the archaeology of knowledge and about relations of the self to the self. In this thesis, the archaeology of knowledge and relations of power are the most important part of Foucault's work. Therefore I will only address this part of his philosophy.

Foucault's philosophy is about different-thinking (Doorman & Pott 2002:221). Foucault likes to break with common beliefs, and turn everything around. This way of thinking is also of big importance in his archaeology of knowledge. Foucault argues that there is no reason to believe that there is only one kind of rationality. As Doorman & Pott (2002:223) are sketching, Foucault takes scientific knowledge as an historical construction. Every kind of common knowledge can be disrupted and be substituted for another common knowledge. An example of such an event is sketched by Nietzsche (1882) in his *Fröhliche Wissenschaft*. Nietzsche describes a fool who is looking for God with a lantern of a sun shining day on the market. As the man cannot find God, he claims God was killed by people. This could be the breakpoint of two periods of common knowledge in history. One with an alive and kicking God, one where He is dead.

Archaeology of knowledge shows us the different layers of common knowledge through history. The archaeology of knowledge reconstructs the structure of every layer and indicates the differences between the layers of knowledge. By showing these differences, the archaeology of knowledge cannot do otherwise than criticise today's common knowledge (Doorman & Pott 2002:224). While layering historical periods of different common knowledge, archaeology of knowledge has to break up our today's common knowledge. At this point, our legitimations of today's common knowledge will often be discovered as incorrect. Foucault believes that truth and the rational human are not the source of common knowledge but, on the opposite, that humans are products of systems of common knowledge. This is the different-thinking Foucault is practicing.

Foucault is no absolute relativist (Kelly 1994:390). He does not believe that there is nothing we can philosophize about. He recognises the importance of truth. However, Foucault does not believe that there is only one truth. This pluralism makes it harder, but also more necessary to stick to truth (Doorman & Pott 2002:225). Truth depends not on something outside the system (e.g. God, metaphysics), but on the relations in the system itself. It is at this point, that Foucault introduces his power analysis.

Relations of power determine humans. Humans are produced by power relations (Doorman & Pott 2002:228). Discipline makes individuals, as Foucault shows in his book *Discipline and punish* (1977:170). Disciplination and normalisation are present mechanisms of power. These mechanisms form not only prisoners and criminals, but also the brave citizens we all want to be (Doorman & Pott 2002:229).

As I mentioned already, Foucault is not a relativist. However, he has been accused of degrading humans to aboulic casualties of systems of power (Doorman & Pott 2002:230).

This art of criticism plays an important role in the work of Jürgen Habermas. Foucault has rejected this criticism. He believes (power-)systems are not stable, but sensitive to resistance. Power and the resistance to it, can lead to other structures of power. According to Foucault, every system of power will lead to resistance by the people who have less power. The big difference between Foucault and Habermas is that Foucault does not believe power can be knocked down in the end. Power relations will always determine humans. Resistance to power can only change power, but it cannot make power disappear (Doorman & Pott 2002:231). This is what makes Foucault postmodern. He rejects rationality and puts power in its place.

2.3 Synthesis: Rorty and Latour

In the last paragraph, modernism has been saved by Jürgen Habermas (at least he tried to) and postmodernism has emerged from the work of Michel Foucault. Modernism and postmodernism can be seen as opposite forms of philosophy. Until now the debate between the two forms of philosophy is still ongoing. However, there are also philosophies who try to reach a synthesis.

When we use the notion of synthesis, we are facing a thesis called modernism and an anti-thesis called postmodernism. Using this notion, I will be able to find a philosophy that synthesizes the best of different theories in it. A synthesis is more than just a compromise. I will borrow Hegel's definition of synthesis as a guide leading us to a philosophy that has the potential to make us understand spatial change. A synthesis arises when the two extremes are *aufgehoben*. Hegel uses the word *aufgehoben* in three different ways. A thesis and an anti-thesis are *aufgehoben* when they are preserved, abrogated and brought to a higher level (Doorman & Pott 2002:81).

The work of Richard Rorty and Bruno Latour can be seen as attempts to reach a syntheses based on modernism and postmodernism. Richard Rorty is characterised by Rajchman (1991:12) as a philosopher who does not need the philosophy of Kant to be a liberal. I believe that also Latour has an innovative view on philosophy that could lead to a synthesis. In his book *We have never been modern* (1993) Latour tries to find a synthesis between pre-modernism, modernism and postmodernism step by step. The work of both Rorty and Latour is discussed in this paragraph.

Both Rorty and Latour have criticized the synthesis of Hegel. Latour wants to break down all separations, whereas Hegel sets up new separations. According to Latour (1993:57)

Hegel is pushing this separation to the top and beyond, and makes it the driving force of history. Rorty (1989:78) sees Hegel's dialectical method not as an argumentative procedure, but just as a literary skill. Rorty (1989:79) argues that Hegel's philosophy cannot be an argument in favour of modernism. What Hegel actually did was founding an ironist tradition within philosophy.

I believe that this criticism does not make it impossible to use the philosophy of Hegel to characterize both Rorty and Latour. The reason is simple. In this thesis Hegel will not be used to clarify our whole history. I am only asking permission to use Hegel's dialectics to characterize philosophical theories. I think even Latour should agree on the belief that there are more or less opposite philosophical theories on how our world looks like. And to satisfy Rorty, I will promise here that I will not use Hegel to give modernism a philosophical fundament.

2.3.1 Rorty: liberalism without rationality

The third approach for finding a solution to solve the crisis in philosophy can be found in the Anglo-American tradition. Richard Rorty is one of the most important representatives of the Anglo-American pragmatism after the philosophical crisis.

According to Rorty (1989:73) we do all have our own final vocabulary. A final vocabulary is a set of words, which we employ to justify our actions, beliefs and lives. A final vocabulary contains the words in which we tell the story of our live. Rorty (1989:XIV) distinguishes intellectuals in ironist like Nietzsche (and Foucault), and metaphysicians like Marx, Habermas and Rawls. Ironists and metaphysicians differ in how they deal with uncertainty about their final vocabulary.

Ironists are people who fulfil three conditions (Rorty 1989:73). First an ironist has fundamental and ongoing doubts about her own final vocabulary, because she has been impressed by final vocabularies of others. Second, she realises that these doubts cannot be solved through argumentation within the borders of her own final vocabulary. Third, an ironist does not believe her own final vocabulary to be more real than others.

Metaphysicians are also having doubts. But they differ from ironists in how they deal with their doubts. Rorty adapts the definition of the term *metaphysician* from Heidegger. In this definition a metaphysician is someone who takes the question "What is the intrinsic nature of something (e.g. justice, science, knowledge, Being, faith, morality,

philosophy)?" at face value (Rorty 1989:74). The metaphysician believes that the terms in his final vocabulary are referring to something with a real essence.

In his analyses of ironists and metaphysicians, Rorty uses a differentiation between the private and the public. On the one hand we have the private sphere as being a place for self-realisation. And, on the other hand, we face the public sphere in which we have to get in touch with other people and live with them on one planet. The public-private split is used by Rorty to make it possible that we all become ironists without facing the cruel consequences of ironic final vocabularies. This is important as Rorty emphasis intellectuals becoming ironists.

It is in his book *Contingency, irony and solidarity* Rorty tries to show that intellectuals should become liberal ironists. Rorty borrows his definition of *liberal* from Judith Shklar. In her view liberals are the people who think that cruelty is the worst thing humans do (Rorty 1989:XV). Rorty is, however, not giving a philosophical fundament for his statement. On the contrary: Rorty (1989:5) believes that there cannot be found any philosophical fundamentals for any universal theory. According to Rorty (1989:94-95), philosophy has to stay in the private sphere. Being an ironist, one can philosophize as much as one wants. However, the ironist will never search for universal philosophical fundamentals or such (Rorty 1989:73). In the public sphere philosophy has no function anymore. Here we should endeavour to reach solidarity. Because the need to strive for solidarity cannot be founded on philosophical fundamentals, Rorty has to find something else to state his argument. Rorty (141-144) believes this can be found in literature and art.

Rorty tries to solve the debate between Habermas and Foucault by splitting up the world in a private sphere and a public sphere. In the public sphere we should follow Habermas without the need and possibility to state this with philosophical fundamentals. In the private sphere we can philosophize in the way the French are doing. This is how John Rajchman puts it: Rorty tells us that Foucault's work is only of private importance, and that we should not project his philosophy on the world. On the other hand he agrees on Habermas that there is a need to be liberal. However, Rorty believes that we don't need to search for universal fundamentals to underpin this need (Rajchman 1991:12).

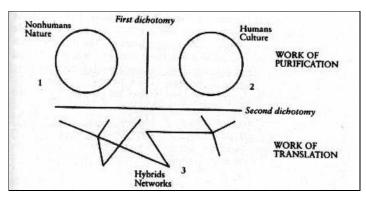
Richard Rorty's philosophical work is seen as a synthesis to the opposite philosophies of Habermas and Foucault. However there can be made some remarks. In the first place it can be questioned whether Rorty is really doing something new, which is an important part of the notion of synthesis I have put forward. The biggest part of both Habermas'

and Foucault's work stay the same. It is only put into a framework of public and private worlds. In the second place the fundament for Rorty's theory is not that stable. Rorty argues that the use of philosophical fundaments is not possible and not needed. However, at the same time Rorty uses art and literature as a fundament to underpin the need of solidarity. Rorty does not make clear why the philosophical fundaments become obsolete, whereas at the same time literature and art make it possible to make a social-liberal out of everyone.

2.3.2 Latour: the non-modern alternative

In this chapter we have seen that there have been different approaches on solving the crisis in philosophy over the years. These different approaches are still very much bound to their geographic place. Habermas in Germany thinks that introducing more forms of rationality can save modernism. Foucault in France turns everything around. As he argues, not rationality creates reality but power does. Rorty tries to make a synthesis out of these two clashing philosophers. However, it can be questioned whether he created something new. Furthermore his alternative to the impossibility of using philosophy as a fundament to theorizing is not convincing. A synthesis that may be more useful to explain spatial change can be found in the work of Bruno Latour. He tries to show that pre-modernism, modernism and postmodernism can be *aufgehoben* in favour of the synthesis called *non-modern Constitution*.

Latour (1993:56) agrees on the belief that Kant can be seen as the beginning of modernism. However, to show how the modern Constitution is set up he uses the work of Boyle and Hobbes. These two sociologists construct two separations on which the modern Constitution can be recognised (Latour 1993:13). On the one hand we have the separation between humans and non-humans constructed by Boyle. On the other hand we find a separation between the modern Constitution in which humans and non-humans are separated, and the pre-modern culture in which there is not such separation. Here we see hybrid networks of humans and non-humans (see scheme 3.1). We, in the Western world, think that through the separation of humans and non-humans we became the leading part of the world (Latour 1993:97). In what we call pre-modern cultures, which are observed by anthropologists, the hybrids of nature and culture are still visible.



Scheme 2.1: The two dichotomies of modernism (Latour 1993:11).

By linking up humans and non-humans within a network, hybrids are created. Latour (1993:10) calls this the work of translation. Hybrids are defined by Latour as "mixtures between entirely new types of beings, hybrids of nature and culture." It are associations of humans and non-humans. As we shall see in chapter four, Latour has also called them propositions. An example of a proposition/hybrid is a mound. When we ask people whether a mound is cultural or natural some might answer cultural because of the fact that people created them. Others would name the sea as a natural cause for the existence of mounds. Furthermore they would point to the fact that mounds do exist out of mud. With the notion of proposition/hybrid we can make an end to this never ending discussion. Mounds are neither cultural nor natural. Mounds are none of the two and both of them at the same time. Mounds are hybrids.

The work of translation is separated from the work of purification. Here humans and non-humans are separated. Humans are represented by politicians, non-humans by science. Politics and science should remain separate in the modern Constitution (Latour 1993:28). Habermas does also fit into this view on modernism. As Habermas (1980) believes there are even three different cultural spheres in the modern world. Science, morality and art. Politics finds its place within the sphere of morality.

The modern Constitution offers four guaranties (Latour 1993:32). Firstly: even though we construct Nature, Nature is as if we did not construct it. We do take science as the absolute truth. This is regarded by Latour as the first paradox of modernism. On the one hand we see nature as immanent, whereas on the other hand nature is constructed by scientists. Secondly: even though we do not construct Society, Society is as if we did construct it. In the modern Constitution the effects non-humans have on humans are neglected in the sense that we do not make non-humans part of the political process. On the other hand: the non-humans are recognised as important when we see them as facts we cannot change. However, at the same time we act as if humans and only humans can

decide on how society will function. This is the second paradox of the modern constitution. Thirdly: Nature and Society must remain absolutely distinct: the work of purification must remain absolutely distinct from the work of mediation. Fourthly: the crossed-out God is totally absent but ensures arbitration between the two branches of government. God has no influence anymore within the worlds of nature and society. However He ensures the separation of the two. Modern men are atheists and religious at the same time (Latour 1993:32).

The modern Constitution carries a lot of paradoxes in it. As mentioned above Latour believes this Constitution cannot be hold. Habermas attempt to save modernism is criticised strongly by Latour (1993:60). He calls this attempt "one of the most desperate." He accuses Habermas of abstaining from all empirical inquiry when he wants to save modernism. "Not a single case-study in the five hundred pages of his [theory of communicative action]" concludes Latour expressing his perplexity on this. On the other hand the postmodern alternatives to Habermas cannot satisfy Latour either. He sees postmodernism as a symptom of modernity. Postmodernism is not an alternative to the modern Constitution, but it is only questioning the guaranties of this Constitution (Latour 1993:46).

Rather than choosing site for either Habermas or his postmodern criticisers like Lyotard and Foucault, Latour is developing a non-modern Constitution. In order to get this Constitution Latour makes a list of elements he wants to keep from the pre-moderns, the moderns and the postmoderns (see Latour 1993:135). In essence Latour wants to show that not only humans have influence on society. Also non-humans and hybrids have an influence on this society. In fact, Latour believes that there are no pure subjects and objects at all, but that only hybrids do exist. Latour (1993:144) concludes that it has always been like this, so that we only have to recognise that we have never been modern.

3. Shifts in planning theory

Since the 1960s spatial planning has shifted from a technical rational point of view toward a more communicative point of view (Peters 2004:9). In this chapter this shift will be described. Other directions in planning theory are described in paragraph 3.4. In the last paragraph of this chapter there will be a word on the synthesis of Habermasian and Foucauldian planning theories.

3.1 Faludi and planning euphoric

The ideas about rationality have also been implemented in spatial planning. In the 1960s and 1970s (technical) rational and system views of planning were dominant (Healey 1993:234; Almendinger 2002:41; De Roo & Porter 2004:93). According to Cherry (1996:133), who is looking from a more political perspective, the rise and fall of the 'planning as design' paradigm in Britain can be dated on the elections of 1951 and 1974.

Both (technical) rational theories of planning and system approach are about generating and evaluating alternative spatial plans in a scientific way. In terms of Kuhn (1970) we can speak of a specific planning paradigm that was dominant in the 1960s and 1970s. This paradigm has also been called 'planning as design' (Almendinger 2002:41).

Andreas Faludi is, together with the Chicago school², one of the most important planning theorists in technical rational planning theory (Almendinger 2002:53). Rationality can be seen as "the clarification of policy goals, systematic analysis, logical generations of policy alternatives, systematic evaluation of these alternatives and monitoring performance" (Healey et al. 1982:8, quoted in Almendinger 2002:53).

Planning theory is defined by Faludi (1973:IX) as "an intellectual endeavour aimed at solving some of a whole range of problems which planners face." Faludi (1973:3) differentiates between theory *in* planning and theory *of* planning. Theory of planning helps planners understand themselves and the way they plan. Theory in planning is a substantive theory. It tells something about the substance of the field of planning. As

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² The Chicago School was a degree course offered at the University of Chicago in the 1940s and 1950s. Leading theorists were Banfield and Perlof. The ideas of the Chicago School go back on the ideas of Max Weber, Karl Mannheim, Plato and Aristotle (Almendinger 2002:53,56).

Faludi (1973:3) argues, planning theory should be more about theory *of* planning than about theory *in* planning.

Faludi constructs his theory upon the basis of the human mind. He suggests that in essence a planning agency is doing the same as the human mind (Faludi 1973:54). A receptor sees a problem and is linked to the memory and the selector, where research is done and where rational decisions are made. An effecter implements the plan into the environment (Faludi 1973:75-79). This model of planning emphasis a very rational view on planning. Rationality is used in this case as goal-means rationality, what one could also call technical rationality.

Gerd Albers (1993:97) calls the planning between 1960 and 1980 *Development planning*. This kind of planning came into play after one recognized that it was not enough to help natural development with a guiding hand of planning (Albers 1993:99). This was the time that planners definitively came to the conclusion that they had to set goals (Albers 1993:100). Goal setting is thus one of the most important characteristics of development planning. Albers points out that it was in this period that planning theory itself emerged. Central theme of this planning theory was to find a way from broad goals to concrete actions (Albers 1993:101). Albers believes the 1960s and 1970s were the years of planning euphoric: everything was possible. Planners did believe they were able to make the future. The model of Faludi can also be seen as a product of the planning euphoric in the 1970s.

3.2 The fall of technologic feasibility in planning

In the 1970s there is not only a crisis in philosophy as recognized by John Rajchman (1991:4). We can also see a shift away from the modern way of spatial planning (Peters 2004:9). Here again it is difficult to put a date on it. Authors from different countries and from different (planning theoretical) backgrounds put different dates on the shift from the modern planning towards communicative and collaborative planning. However they seem to agree that the shift can be dated somewhere at the end of 1970s.

Already in the 1960s criticism can be found towards the functional rational method of planning (De Roo 2003:108). In the 1970s the definitive transition of planning theory towards a less technical approach was made (De Roo & Porter 2004:93). De Roo & Porter believe the scenario approach, which came into play in the late 1970s, has led to specialisation in the field of spatial planning. Every ministry got its own specialisation.

Therefore specialisations like water management, traffic and transport policy emerged. The outcome of this specialisation was a struggle between government departments fighting for the extent of their influence on planning (De Roo & Porter 2004:94). Negotiations between the departments became regular. One of the most prominent dilemmas between policy sectors was the so-called *paradox of the compact city* in The Netherlands (De Roo & Porter 2004:94). Whereas planners emphasised a compact city policy, environmental policy claimed more and more influence on spatial issues by an expanding environmental zoning programme. The result was a clash between both policies. According to De Roo & Porter (2004:94-95), scenario planning and the conflicts between specialised policy sectors is the beginning of the end of *planning as control*.

There are also some broader developments in society that account for the disappearance of the *planning as control* paradigm. Fürst (2002:28) differentiates between external and internal occasions ending the planning euphoric. The oilcrisis in the 1970s can be named as an external occasion (Albers 2004:112; De Roo & Porter 2004:93; Fürst 2002:28). In Germany the oilcrisis and the abrogation of the gold-dollar binding³ in 1972 led to the problem that the country could gather less income through export. Due to this problem the State could gather less income (Fürst 2002:28). Albers (1993:101) names also the expanding insight in the 'Limits to growth', the report on the state of the environment of the Club of Rome in 1972.

An internal occasion of the fall of technical rational planning are the poor results in the practice of City planning (Albers 2004:112). The resistance in parliaments towards the exhaustive state planning can also be named (Fürst 2002:28). Fürst also sees a problem in the combination of an obdurate planning and a dynamic social development. Furthermore there is a problem with the democratic legitimation of middle term and long-term planning. The last problem Fürst (2002:29) describes is the one of social reforms. The more social reforms are introduced, the more resistance there is towards planning.

The breakdown of the *planning as design* paradigm became most visible in Great Britain as Thatcher came to office after the 1979 elections (Albers 1993:101). Thatcher did not think in a very positive way about planning. Market principles should be emphasized so that people could get what they really wanted instead of getting what planners and bureaucrats thought they needed (Ward 1994:206). Thatcher made much of the

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³ Till then the value of the US Dollar had been on a high level, because one had the right to change Dollars for gold. After De Gaulle send some Dollars he wanted to change for gold (for the reason he thought there might be not enough gold) this right was abrogated. Due to this abrogation the exchange rate of the US Dollar sank.

unpopular 1960s mass housing. She called it 'social vandalism, carried out with the best of intentions but the worst of results' (Thatcher 1989:128, quoted in Ward 1994:205).

3.3 The argumentative turn

The response to the crisis in planning theory was not as differentiated as it was in philosophy. Communicative and collaborative planning theory, highly based on the work of Jürgen Habermas (Healey 1996:219), became the mainstream planning theory (Peters 2004:9). *The argumentative turn* (the title of a book written by Frank Fischer and John Forester in 1993) became a notable expression in the world of planning theorists (Peters 2004:9). It is in this book that Healey points out the argumentative (or communicative) turn in planning theory.

Healey has been influenced by the work of Jürgen Habermas, especially by his theory of communicative action. She has also taken some influences of Foucault, Bourdieu and studies of planning practice into account (Healey 1993:246). However, we can still argue that the biggest part of her theory is based on Habermas' theory of communicative action (Peters 2004:9). In her article Healey points out some adjunctions to the theory of communicative action. She sticks to the criteria for assessing claims, which were set by Habermas and developed to heuristic questions by John Forester (1989:144). These four criteria are: comprehensibility, integrity, legitimacy and truth (see also paragraph 2.2.1). With heuristic question planners can examine actions of their own and of others. This examination should lead to power-challenging planning (Healey 1993:244). In other words: by examination of behaviour, the influence of power relations on the outcome of a communicative planning process can be minimalised. Forester (1989:150-151) proposes several strategies for planners to respond to possible distorted communication on planning issues. On the level of face-to-face, organizational or politic-economical structures communication has to be based upon the four above-mentioned criteria. For example, to meet the criterion of comprehensibility, jargon should be minimized at the organizational level.4

So Healey takes over the four heuristic questions, which John Forester derived from Habermas' philosophy. However, Healey has her own additions to Habermas' theory. Healey believes that different actors have different systems of meaning. Therefore every actor in the planning process has its own believes about how the real world looks like. Not recognising this fact does mean that the system of meaning of the most powerful

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⁴ For a complete overview see Forester (1989:151).

actor will be used as if it is the only true system of meaning (Healey 1993:244). Also the system of meaning proposed by scientific rationality can only be ruled out if we recognise the existence of different systems of meaning. Communicative action should therefore rather develop this understanding and develop practices of interdiscursive communication than superimposition.

Because of the different systems of meaning, Healey is not convinced of the possibility of a long and stable consensus among planners. She believes however there can be a temporal accommodation of different, and differently adapting, perceptions about specified problems planners face (Healey 1993:224).

Healey (1993:246) concludes that there are emerging outlines for a communicative planning theory from the work of different planning theorists during the 1980s. In the first place, planning is an interactive and interpretive process, focussing on "deciding and acting" (Healey 1993:247). However, following Habermas' learning processes between the domains of science, morality of art (see Habermas 1980), planning processes should be 'enriched' by discussions on morality and art. By means of communication we are searching for mutual understanding. At the same time, we are also aware of everything not included in this understanding. Respectful discussion is involved in communicative interaction. Communicative planning is also reflexive about its own process. It is not enough to search for mutual understanding and respectful discussion. Conflicts should also be identified and mediated.

Another important outline for communicative planning processes is that claims cannot be ignored in the discussion. Only the claim of something 'not being on the agenda' is not accepted in a communicative process. As Healey (1997:265-266) believes, claims should be assessed in terms of four Habermasian criteria: comprehensibility, integrity, legitimacy and truth. According to Healey, this critique is inbuilt in the process of communication. It does not label discourses as 'right' and 'wrong'. However, it serves the project of democratic pluralism (Healey 1993:248). When all criteria are met, there is a so-called 'ideal speech' situation. In addition, the outline for communicative planning is that every actor in the process deserves to speak, to be heard and to be respected. There is also an innovative aspect. The communicative process is searching for an outcome that serves the interests of all participants. In the best matter, this transformativity is reached through the power of the better argument. In the last place communicative planning does not define future. Healey does not believe in stable consensus over a long time. As Healey points out, communicative processes are future-seeking.

There has been a lot of criticism on the theory of communicative planning. At this point I will address two major points. In the first place, the concept of the 'ideal speech situation' is often regarded as normative. Planners like Healey and Forester do, however, not agree on this. As Forester (1993:3) tries to show, Habermas is not thinking, ideal speech situations can be achieved. As Forester argues, Habermas does only point out his proposition that at the moment we are searching for mutual understanding, claims are assessed by the above-mentioned criteria. However, it is still obvious that Habermas, Forester and Healey promote mutual understanding. And it is also clear that Habermas (1987) has no empirical evidence that states the need for mutual understanding. This is still a normative choice. Secondly the power of the better argument is contested. As we will see in the next paragraph, planning theorists like Flyvbjerg do not believe in the power of the better argument. Based on case studies, they do believe on power mechanisms that form institutions and individuals.

3.4 Other directions in planning theory

In the last paragraph, I presented the mainstream planning theory of the 1990s: communicative and collaborative theory. In this paragraph other directions in planning theory are examined. In paragraph 3.4.1 I will address the work of Bent Flyvbjerg. In paragraph 3.4.2 two attempts to move to a synthesis in planning are described.

3.4.1 Foucault in planning: the postmodern alternative

Based on Foucault's analysis of power, Richardson (1996) concludes that communicative ways of planning experiences the influence of power. As mentioned earlier, other planning theorists (e.g. Healey 1993; Forester 1993) have tried to resolve the power-blindness of communicative planning theory. However, what they actually did is recognize the importance of this criticism. Than they tried to remove the influence of power. Thereby, the value of Foucauldian discourse theory for planning has not been properly addressed (Richardson 1996). According to Richardson, a Foucauldian paradigm could lead to a kind of planning that "accepts agonistic planning, sharpens the jagged edges of opposition, and brings to the surface the underlying politics, exposing attempts to control access and appropriate knowledge."

Bent Flyvbjerg has tried to draw some further conclusion about how such a paradigm could look like. In his book *Rationality and Power* (1998) he extensively describes the so-

called Aalborg project in the city of Aalborg, Denmark. This planning project, what was initiated in 1977, has been observed by Flyvbjerg through extensive interviews with the main actors and material from reports, newspapers and so on. Flyvbjerg's study is antienlightenment in the sense of being against the "general outlook of the Enlightenment on how social and political affairs work" (Flyvbjerg 1998:3). He uses the ideas of thinkers like Nietzsche and Foucault to explain the Aalborg project in terms of power and rationality. Some planning theorists have criticised Flyvbjerg for not taking rational forms of planning theory into account (e.g. Forester 2001:268-269). However, Flyvbjerg (2001:286) responds to this criticism by arguing that the empirical phenomena found in his case study have a broader impact on social science, not only planning theory. Therefore, only interpreting the results in terms of theories within the "narrow confines" of planning theory would be less valuable.

Based on the Aalborg case study Flyvbjerg lists ten propositions about how a planning theory based on thinkers like Nietzsche and Foucault could look like. At this point, some planning theorists have accused Flyvbjerg of drawing up a whole theory on only one case study. However, there is only the talk about propositions, not thesis (Flyvbjerg 2001:288). Flyvbjerg (1998:227) first proposition states that power defines reality. By defining what counts as rationality and knowledge, power defines reality. In the second proposition Flyvbjerg presents his belief that "rationality is context-dependent; the context of rationality is power; and power blurs the dividing line between rationality and rationalization." The question What is rationality? cannot always be answered in the same way. What rationality is depends on power relations. Flyvbjerg (1998:228) finds in the Aalborg case that rationalisation is practiced by all actors. This leads to the proposition that rationalization presented as rationality is a principal strategy in the exercise of power. The more powerful actors are, the less need they feel to take rationality into account. As proposition four states: the greater the power, the less the rationality (Flyvbjerg 1998:229). Whereas research focuses on antagonistic confrontations between actors, Flyvbjerg (1998:230) finds that stable power relations are more typical of politics, administration and planning. Flyvbjerg suggest that confrontations are avoided and transformed as quickly as possible in stable power relations. This proposition is also supported by the philosophy of Michel Foucault. However, this does not mean power relations always stay the same. As Flyvbjerg's (1998:231) sixth proposition states, these relations are constantly being produced and reproduced. In open confrontations power-to-power relations are dominant. This is because in such situation this is most effective. As Flyvbjerg (1998:232) puts it: naked power actions work more effectively than an appeal to facts or rationality. On the opposite, in stable power relations the appeal to rationality works more effectively. The

reason for this is that decisions based on rationality-power relations gain higher degrees of legitimacy and consensus. Following these propositions, Flyvbjerg (1998:233) comes to the conclusion that "the power of rationality is embedded in stable power relations, rather than in confrontations." From a historical point of view, the rationality of power has deeper roots than the power of rationality has. This is what Flyvbjerg wants to show in his seventh proposition. First there was power, later modernity and democracy came into play. As Foucault suggests, modernity and democracy are the outcome of power relations (Doorman & Pott 2002:229; Flyvbjerg 1998:232).

3.4.2 Synthesizing opposing planning theories

Like in philosophy, in planning there can be found opposite theories. These theories find their fundamentals in respectively the modern work of Habermas and the postmodern work of Foucault. However, lots of planning theorists do believe that the truth is somewhere in the middle. Various attempts have been made to find a theory, which combines the best of both. In this paragraph two of these attempts will be addressed. In the first place I will say a word on the work of Gert de Roo. His work is on facts and opinions in planning processes. In the last part of this paragraph there will be a word on the work of Wolf Reuter. According to him, discourse and power in planning are complementary.

De Roo: facts and opinions

Spatial planning is seen by Gert de Roo (2003) as a decision-making policy on spatial issues. De Roo makes a distinction between two planning theories that have been dominant theories in respectively the 1960s and the 1990s. According to De Roo (2004:103-104) these planning theories - functional rationalism and communicative rationalism - are opposite to each other. However, the bulk of the planning issues would be most sufficient solved by a theory based on the dualism between both theories.

The functional rational approach to planning was popular in the 1960s. As elucidated in paragraph 3.1, this kind of planning is very much based on a modern view (in a philosophical sense) on the world. De Roo confronts this view on planning with the other extreme in rational planning theory: communicative rationality. Communicative planning theory is seen by De Roo (2003:94) as postmodern. He believes there are two elementary aspects. First, the nondualistic characteristic of postmodernism in the sense of refusing separations between objectivity and subjectivity or fact and opinion. Second,

33

the encouraging of plurality and differences (De Roo 2003:146). These aspects are two of the four dichotomies presented by Milroy (1991). This is a less broad view on the term postmodern as Flyvbjerg (1998) and Richardson (1996) emphasize.

De Roo lists three dimensions of every planning process. In the first place there is the object-oriented dimension. This dimension is about the goals that should be achieved. The second dimension is about the decisions made during the process: the subject-oriented dimension. The last dimension is about the question: who will take part in the process. This is labelled the intersubjective dimension. As De Roo points out, these dimensions can describe all possible planning theories between the 'extremes' of functional rationality on the one hand, and communicative rationality on the other.

As De Roo (2003:122-132) argues, it depends on the degree of complexity whether a more technical or communicative approach is more sufficient to solve a planning problem. To indicate the level of complexity, he uses the above-mentioned dimensions of planning. When a spatial issue is about fixed goals, with only one actor that has full control it can be solved at best in a functional rational way. However, communicative planning should be favoured when an issue is about broad goals, linked or integrated problems; when there are many relevant actors, and when decisions have to be made within a dynamic context (De Roo 2003:126-127).

Reuter: complementary of power and discourse in planning

Another attempt to synthesize opposing planning theories was made by Wolf Reuter. Power and discourse are complementary in planning. That is the conclusion Reuter (2000) derived from a case study on the *Stuttgart 21* project. Reuter addresses one of the most important objections on Habermas' theory of communicative action: its power-blindness. As we saw above, in planning Bent Flyvbjerg did state some propositions for a theory on planning in which power is very powerful in influencing the outcome of spatial plans. Reuter tries to connect Habermasian discourse and Foucauldian power. Or, in other words: he tries to show how these two concepts are complementary in the planning process.

Reuter (2000:13-14) believes both the concepts of discourse and power are used in planning processes. He states this view with a case study on Stuttgart 21. In 1994 Deutsche Bahn (German Rail) decided they wanted to change the terminus in Stuttgart for a through station (Reuter 2000:7; Reuter 2001). As this decision was made, the planning process had begun. Reuter shows how more and more actors got involved in the

planning process in the years after 1994. In the beginning only Deutsche Bahn and the city of Stuttgart were into the project. Later on investors, citizens, opposition groups and others got also involved. These actors made different contributions to the planning process, which were not only discursive contributions. Reuter points out how the more powerful actors, like Deutsche Bahn, could practice more influence on the plan than others (Reuter 2000:8). Claims of less powerful actors, like the participating citizens, are not taken into account. By the mixture of different contributions to the process, the plan does look very different at the end of the process than it did at the beginning.

Reuter (2000:9) argues that a lot of contemporary planning 'experiments' are building upon the concept of discourse as it is presented by authors like Healey (1993; 1997) and Selle (1991). However, Reuter believes that every author who occupies him or herself with discursive planning processes should also recognise the influence of power on the process.

In planning processes, Reuter (2000:10-11) distinguishes two kinds of planning acts: discursive and power acts. Discursive acts are described by Reuter as *all speech acts addressing the questions being asked during the planning process, including asking of the question themselves*. Reuter describes power acts in more detail. Power uses all possibilities to raise the possibility that own interests are being implemented. Like Flyvbjerg, Reuter uses the philosophy of Michel Foucault to state the existence of power. As mentioned already by Flyvbjerg, Foucault tries to show us that power is not an outcome of relations between different actors. On the contrary: actor relations are a result of the influence of power (Foucault 1977).

Reuter shows the complementary of discourse and power with some examples from his case study on Stuttgart 21. Power acts (e.g. threats) can be followed up by discursive acts (as a response). Power acts can also be based on argumentation. Power can hinder argumentation or use it as an instrument. Argumentation can produce and change power relations. Argumentation can also be about power, legitimate or uncover power (Reuter 2000:14).

3.5 Philosophy and spatial change

Planners today do share one argument. That is that the modernistic way of planning is not useful anymore these days. In this chapter I have shown how the philosophical debate between German, French and Anglo-American traditions also has its influence on

planning theory. However lots of planning theorists tend to search the golden middle way. Healey tries to take Foucauldian criticism into account. Flyvbjerg (2001:292) agrees that rationality can lead to better plans, and that planners have to stand for that. More explicit Reuter and De Roo emphasized *synthesis*. De Roo makes a synthesis of pure modernism and Habermasian modernism. Reuter tries to put Habermasian and Foucauldian fundamentals into a theory about the complementarity of power and discourse.

3.5.1 The need for a positive theory on spatial change

In this chapter I have already made some remarks to communicative and collaborative planning theory. I believe we can distinguish two main points of critic. In the first place communicative planning theory has taken over normative goals from Habermas, while at the same time it emphasis looking at planning practice. Furthermore, we face practical problems when we implement communicative theory into practice.

The fundament, which communicative planning theory is based on, is in essence a normative theory. However, one could successfully argue that planning theorists try to modify the Habermasian theory by looking at other theoretical directions and empirical research. Healey (1993) and Forester (1989) have tried to response to the powerblindness of the communicative planning theory. Selle (2004) and De Roo (2002) emphasize looking at planning practice. However, even with these modifications of Habermas' theory of communicative action, it is still normative in its way it seeks rationality, and tries to rule out power. Therefore, treating communicative planning theory as if it was a positive theory on spatial planning cannot be done without ignoring these facts. This should not mean communicative planning theory is useless. In the first place, from a political point of view it can still be worth striving for. Secondly, being a normative theory does not mean that the fundamentals it is built upon are all normative. In fact: Habermasian orientated theory has used largely positive research to state the necessity of implementing the normative theory. For a positive theory we can still use these positive elements of Habermasian theory. However, it is important to recognize that the theory of communicative action was not made to explain reality, but to change it. It is striving for a practice in which power has been ruled out.

The second argument that shows us why communicative planning theory cannot be hold anymore has been presented by Johan Woltjer (1997:49). He has listed some practical problems. Often, not all relevant actors join the process of communicative planning (see

also Flyvbjerg 1998:68). Neither have the actors the same influence on the process. Another problem is the shift from attention for the interests of society as a whole to attention for the shared interests of the participating actors. At least in The Netherlands Woltjer points at legal regulations. Opponents have more legal possibilities to express their objections than champions of a plan have to express their arguments. Through complexity of communicative processes the state has less means to manage spatial plans. Yet another important drawback is the lack of cohesion. Many actors only have short-term visions. Most actors do only join a planning process when it is about their own backyard. Woltjer signalises professional knowledge not being used, because a broad social basis is regarded as being more important. The last point of criticism of Woltjer is that through the search of a broad social basis planning procedures are getting more and more the same. This uniformity can lead to a situation in which the procedure becomes more important than the content and ends of a plan. The practical problems of both technical rational and communicative planning theory are the second indication that it could be useful to get closer to planning practice.

3.5.2 Syntheses in spatial change and philosophy

As we saw in chapter two, Hegel suggests that a thesis always evokes an anti-thesis. We can also see this in planning theory. After the crisis in the 1970s, planning theorists like Healey developed a thesis called communicative and collaborative planning. As this thesis was largely inspired on the work of Jürgen Habermas, it is no surprise that the anti-thesis of Flyvbjerg and others is based on the work of Habermas' philosophical opponent Michel Foucault.

By synthesizing opposite theories we can make find a theory that meets the criticism to communicative theory. In this chapter we have seen some attempts to do this. De Roo (2003) tries to show the dualism between technical rational facts and communicative rational opinions. I believe this approach can be criticised because it is not a synthesis of the thesis and anti-thesis we defined above. The definition of postmodernism used by De Roo (2003) goes back on an article of Beth Moore Milroy on this subject. According to Milroy (1991:182) theorists use the term postmodernism in very different ways. These ways of interpreting the term can be placed on a continuum. Milroy (1991:183) believes this is a continuum from a postmodernism as a revision of modernism to postmodernism as a displacement of major modernist dogmas. She designates three ways of using the term on this continuum. In the first place she imagines postmodernism as a revision or variant of modernism. These revisions can be needed because of changed conditions and

understanding. The second stop at the continuum is the point where postmodernism is taken as a new period with new conditions over which subjects have to gain mastery (Milroy 1991:183). The third position on postmodernism is a form of postmodernism which radically breaks with modernism. In this view the evident limits of modernism have to be addressed by a transformation of the logics of modernism itself. Huyssen (1986:217-218, quoted in Milroy 1991:184) believes this view does not make modernism obsolete: "On the contrary, it casts a new light on it and appropriates many of its aesthetic strategies and techniques inserting them and making them work in new constellations." On the philosophical level this is exactly what Habermas (1987) is doing.

From the continuum and the three stops along this continuum, Milroy (1991:183) derives four characteristics of postmodernism. In the first place postmodernism is deconstructive. It is sceptical toward common believes, and tries to find out who derives value from this constellation. It tries also to displace common believes. Secondly, postmodernism is antifoundationalistic where it does not believe in universal truth. Nondualism is the third characteristic of postmodernism. It does not recognise the separation between objectivity and subjectivity. In the last place, postmodernism encourages plurality and difference.

Whereas Healey and De Roo are using Milroy's definition of postmodernism, I would suggest using another definition of postmodernism. The problem with Milroy's definition is that it cannot cover the most extreme forms of postmodernism. Another difficulty is that Milroy uses literature from different social sciences, whereas I am treating postmodernism as a philosophical term that was introduced by Lyotard and explicated by Foucault. I would propose to favour this approach because it does create a spectrum in which planning theorists like Flyvbjerg and Richardson can also be taken into account. I admit that one could have obligations toward the theories of Flyvbjerg and Richardson. However, designing a spectrum of planning theories in which they cannot be placed in the first place would be very undemocratic. When we take Lyotard's definition they can be taken into account, and be discussed like other, more modern, planning theories.

Jean-François Lyotard did not invent the term postmodernism himself. However, he was the first who used the term in philosophy (Doorman & Pott 2002:205). Lyotard (1979:XXIV) defines postmodernism as "incredulity toward metanarratives." He sees modernism as a belief in big stories on the (scientific) progress through history. Postmodernism is the disbelief in such stories.

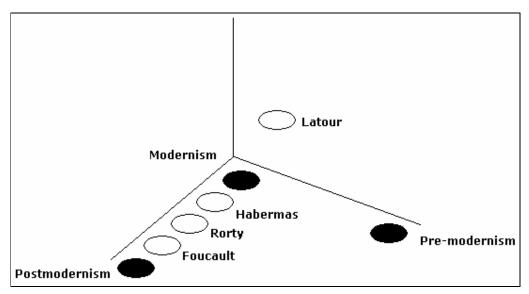
Lyotard's definition of postmodernism goes much further than Milroy's third position. Milroy talks about transformation of the logic of modernism. In the postmodern condition there is not even place for transformation of modernistic logic. This logic is nudged to the ground by Lyotard's disbelieve in the big stories carried out by modernistic thinkers. Can we label Lyotard's definition of postmodernity deconstructive? Yes, we can. It is even more deconstructive than Milroy's third position. Is it antifoundationalistic? Yes, it is. By not believing in any foundation at all it is, again, more antifoundationalistic than Milroy's third position that only proposes to transform foundations of modernity. Is it nondualistic? No, it is not. Lyotard does make a distinction between subjectivity and objectivity (Doorman & Pott 2002:209). He believes that there is a difference between reality on the one hand and the ideas humans have about that reality on the other hand. As Lyotard suggest, we are not able to tear down the wall between the two. However, as we can derive from the above, Lyotard believes science will always stay subjective and never reach objectivity. Is, in the last place, Lyotard's postmodernism encouraging plurality and difference? Yes, it is. Again, there is even more plurality and difference in Lyotard's definition than in the third position of postmodernism Milroy (1991) describes. By ruling out modernity completely the room is totally free for all kinds of subjective thinking.

When we take Lyotard's definition of postmodernity, the distance between modernism and postmodernism becomes larger than when it is defined by Milroy. From this point of view, De Roo actually synthesizes two ways of thinking that are both near to modernity and far away from Lyotard's postmodernism. By so doing it leaves out the influence of power on planning processes. It also does not meet criticism on the concept of rationality (whether it is technical or communicative).

Forester (1989) has made a serious attempt to address the criticism of the power-blindness of the communicative planning theory. However, he actually did what Habermas did on the philosophical level. Although recognizing criticism, both Habermas and Forester did not change their mind on the necessity of respectively the project of modernity (Habermas) and communicative planning theory (Forester). Forester does recognize power plays its role in planning processes. However, he does not want to take the proven influence of power into account. Rather he has chosen to see communicative theory as a power-challenging theory that breaks down this influence.

Among the planning theorists I mentioned in this chapter, I believe that Wolf Reuter gets the closest to a real synthesis of communicative planning and power analysis. He tries to show that discourse and power cannot be seen as distinct concepts. He can state his conclusions on the case *Stuttgart 21* (see also paragraph 5.2). Reuter has developed a very attractive theory on spatial issues. It looks like Reuter has synthesized the thesis and anti-thesis described above. At first sight this could even be the conclusion of this thesis. However, if we go one step back to philosophy, it does not look that simple.

As Latour (1993:46) states, modernists and postmodernists do both make an implicit divide between subjects and objects (or nature and culture). Therefore it is not enough only to look at modernism and postmodernism when trying to find a synthesis. To take the influences humans and non-humans have on one another, we should also take premodernist thinking into account (Latour 1993:100-103). This is the crucial point where Latour differs from Rorty, and where a planning theory based on Latour could differ from the synthesis Reuter showed us.



Scheme 3.1: Positioning the discussed philosophers.

In scheme 3.1 is shown how the position of Latour in relation to the position of other philosophers can be schematised. When we look at philosophy we face three different ways of thinking which have something we would like to keep, but also something we want to retain. Latour tries to do so by building a synthesis out of pre-modernism, modernism and postmodernism. By putting this into a three-dimensional figure, I try to show that Latour wants to get rid of the vocabulary of pre-modernism, modernism and postmodernism. Latour has called his own position non-modern. We can say that Latour has tried to preserve, abrogate and bring the three traditions to a higher level (see also paragraph 2.3).

I believe that it could be very useful to find out whether the position of Latour in philosophy can be used as a theoretical position that could explain spatial change, because what Latour tries to do looks like to be a synthesis in the sense I presented it in chapter two. By listing the attributes of the three opposite ways of thinking, he preserves elements. However, the theories as a whole are abrogated. By breaking down the wall between nature and culture Latour is however doing something new. He brings the synthesis to a higher level.

4. Changing space in a non-modern Constitution

In the following chapter the non-modern Constitution⁵, as already mentioned at the end of chapter two, will be introduced. In paragraph 4.1 I will explain why I have chosen to use the philosophy of Bruno Latour to confront with the research on spatial change. In the latter paragraphs of this chapter I will introduce his non-modern Constitution. Latour's project is like cleaning up a room by first putting everything outside, and than refurnish the room from the beginning. In paragraph 4.2 I will show how Latour cleans the room. We are getting rid of all possible prejudice and metaphysics. After doing so we have to refurnish the room from the beginning. In paragraph 4.3 I will start with the floor, curtains and wallpaper. The three divisions, which form the basics of the new Constitution, will be discussed here. In this thesis I will not already put chairs and tables in de room. However I will discuss the Latourian equivalent of the process on how to decide whether some chairs should enter the room or not, and if so where they are going to stand. This equivalent is the process of examining the existence and influence of actors in the new Constitution. Paragraph 4.6 is about planning theorists refurnishing their room: the usability of the non-modern Constitution for planners will be examined here.

4.1 The usability of Latour in planning

Critical theory, which is inspired on Marxism, is still the fundament of most planning theories. There is however (a beginning of) a debate between the representatives of planning theory based on Habermas and the planning theory based on Foucault (Peters 2004:10). As argued in chapter three I believe that we should search for a synthesis of theoretical directions in planning theory. In chapter two I already showed Latour being a synthesis of pre-modernism, modernism and postmodernism on a philosophical level. I now propose to find out whether it is useful to look at Latour's synthesis and its implications for research on spatial change.

With his *new Constitution*, Latour adds an important aspect to the present discussion presented by Peters (2004): the mutual influence of humans and non-humans on each

 5 The terms 'new Constitution' and 'non-modern Constitution' are different terms for the same thing. I will use both terms in this chapter.

42

other. Latour tears down the wall between nature and culture. He believes this wall does not really exist, but is only a theoretical concept of the *old Constitution*.⁶

In the new Constitution it is not critical theory that functions as the norm, practice should meet. In the new Constitution reality is sought without any prejudice that distinguishes humans and non-humans before the process of constructing reality has begun. It is for this reason I believe Latour has the potential to enrich contemporary theory of spatial change.

4.2 Getting rid of metaphysics

Up until now I have been talking about the impossible separation between nature and culture more than once. It is now time to find a solution for this problem. An alternative to the separation has to be designed. There are two important difficulties when we want to construct a new Constitution (Latour 2004:57-62).

In the first place it is impossible just to tear down the wall between nature and culture. Nature and culture are designed by the moderns as counterparts. However in the old Constitution nature and society cannot do without each other. Nature can only be about things, facts and non-humans when culture is about subjects, opinions and humans. Bringing nature and culture together will lead to a crisis in knowledge about facts, politics and human morality (Latour 2004:57). In other words: we can not make one out of the two worlds if we do not look at the whole metaphysics of nature, and the (by moderns) perceived differences between nature and culture, objects and subjects, science and politics.

Replacing nature and culture for something new can solve the above-sketched problem. We have to get rid of the two worlds that have prejudice about the influence humans and non-humans can have on each other. Latour suggests using the word collective. In the collective humans and non-humans live together. Nothing is established before anything is collected. The term collective should refer to the work of collecting associations of humans and non-humans.

A second problem in establishing the collective is the problem of speech. If we want to give humans and non-humans the same start position we cannot stick to the one-man-

 6 The terms 'old Constitution' and 'modern Constitution' are different terms for the same thing. I will use both terms in this chapter.

43

one-vote principle we used to use in Greek direct democracy. This is of course because it is obvious that things cannot speak for themselves like human beings can.

To solve this problem, we have to get rid of nature's metaphysics in order to design new rules to play the game of constructing reality. We should however not build a new kind of metaphysics. That would mean we would create new prejudices, where we wanted to get rid of prejudices on how humans and non-humans behave. Therefore we cannot make things speak. We can however change the subject-object opposition for the above already mentioned pairing of humans and non-humans. This pairing makes it possible to fill the collective with beings "endowed with will, freedom, speech and real existence" (Latour 2004:61). Doing so would mean that we do not speak any longer about speaking humans and non-speaking non-humans, but about hybrids/propositions that have will, freedom, speech and do exist for real. In the next paragraph we will address the problems we face when we take this notion of hybrids/propositions.

4.3 Three divisions in the world without metaphysics

In the last paragraph we have seen that it is not possible to just put nature and culture together. The only way to break down the separation between the two is to get rid of all prejudice and metaphysics. In this paragraph I will show how Latour wants to build up the new Constitution, without creating a new metaphysics. The composition of the world is not longer a given from the beginning (Latour 2004:62). The composition has to be object of a debate. If we want to be democratic to humans and non-humans, which Latour seems to believe as something that does not need to be discussed, than humans and non-humans should have the same chances. Therefore we need three divisions.

First division: Learning to be circumspect with spokespersons

In the last paragraph I showed that Latour, based on empirical studies, believes in speaking beings who form the collective. I also concluded that things cannot speak for themselves, whereas humans can. In the new Constitution we have to find a modus between these two opposites. Latour (2004:64) offers us the spokesperson. A spokesperson can speak on behalf of humans and non-humans. Latour (2004:67) believes that if no one would say the things speak for themselves, no one would say either that scientists speak on their own about mute things. In other words: what

⁷ Constructed reality has to be distinguished from the terms used by the Moderns in the old constitution. In the old constitution nature was about unchangeable realities, and culture about constructed opinions. In the new constitution there is only constructed reality: real but changeable (Latour 2004:85).

44

scientists tell us about their research topics does depend on how the non-humans act in the research (see also Latour 1987). In this way we can offer speech to both human and non-human actors in the new Constitution. Someone who says "France has decided ..." can now be treated in the same way as someone who says "Molecule X has an ... effect on" An important remark on this indirect democracy is that there is always uncertainty. When we listen to a spokesperson we should always ask ourselves how well the spokesperson has brought the message of the humans and non-humans he is speaking for. However, and this is an important remark, that is not like checking whether the spokesperson sticks to the essence of the proposition he or she is pleading for. In the new Constitution propositions do not have an essence from the beginning. The (serious but not definitive) doubt about the spokesperson is the beginning that could lead to a discussion on the essence of a proposition. Through this discussion the essence of a proposition is assembled step by step (Latour 2004:65).

Second division: Associations of humans and non-humans

In the old Constitution we had to deal with the opposition of objects and subjects. In the new Constitution this opposition is not present anymore. Both humans and non-humans can be an actor in the new Constitution. An actor is defined by Latour (2004:75) as follows: an actor modifies other actors through a series of trials that can be listed thanks to some experimental protocol. As long as the process for becoming an actor is not fulfilled, actors are called propositions. Propositions are associations of humans and non-humans when they are still candidate for becoming an actor in the Constitution.

Third division between humans and non-humans: reality and recalcitrance

Instead of creating another metaphysics, Latour (2004:77) "would like to reopen the public discussion." Reality is to be constructed *by* this discussion, not *before*. The collective does not exists out of nature and society, but it is a melting pot of associations of humans and non-humans (Latour 2004:80). These associations are to be discussed. Latour (2004:81) believes the notion of recalcitrance offers the best approach to define non-human actions. As he puts it, like humans the non-humans do not always follow causal laws. Both humans and non-humans are recalcitrant, and therefore we always deal with uncertainty. Uncertainty about how the associations of humans and non-humans will act.

Conclusions

With the three divisions Latour has brought the non-humans into democracy. The non-humans can now, like humans, be a part of democracy. Non-humans are not alone anymore. They are always associated with humans within a proposition. Development plans for the inner city never come without the humans who initiated them. Furthermore, the certainty of facts has been replaced by the uncertainty of recalcitrant associations of human and non-humans.

4.4 The process from propositions to actors

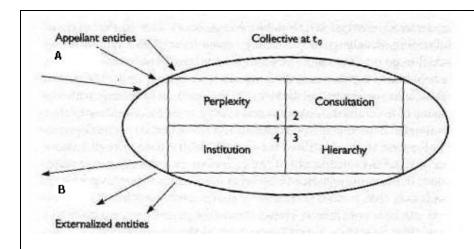
Till now we have been busy with breaking down the metaphysics of the modern Constitution. In the last paragraph I have pointed out how Latour shows us that the modern contradistinction of subject and object was not empirically stated, but just a metaphysical prejudice about how to look at reality. Latour (1987; 1996) has shown in earlier books that in fact there is no subject - object opposition at all. As Latour believes, we always have to deal with associations of humans and non-humans. These associations are called propositions.

Latour leaves open how the propositions form reality together. However he does say a word on the process propositions have to follow through to become real actors in the collective. Latour's project emphasis a process in which every proposition has the same chances to be considered as an important influence on reality at the end of the process. Latour's duty is now to design the basic conditions this process should meet. And it is also necessary to say something about the consequences of having no metaphysics on nature anymore.

To avoid premature conclusions about the actions of propositions in reality, we have to find a new separation of the powers. First we have to find out what propositions do play a role altogether. We have to watch carefully if we do not oversee propositions we expect to be unimportant. After finding out how many propositions are part of the collective, the spokespersons can establish the collective. After establishing the collective, we should not throw propositions out of the collective again. Latour (2004:102) designs two powers for this new separation. The first power is about which propositions are going to be a part of the collective (power to take into account). After the first power has done its work the second power comes into play: the power to rank in order. This power is about finding

out whether the propositions can live together in the first place, how they influence each other and how important they are in the collective.

In the old Constitution the notion of fact captured two requirements. In the first place scientists should not underestimate the number of facts (perplexity), and they should recognize that facts, once instituted, could not be debated anymore (institution). On the other hand in the notion of values were captured another two requirements. Politicians and moralists should hear out every subject (consultation) and everyone should get their legitimated rank (hierarchization). Latour wants to keep these requirements. He believes the four requirements are to be taken into account to make sense of the world we live in. In the black boxes of fact and value these requirements are locked up (see also Latour 1987). However, to be useful in the new Constitution these requirements should be reordered. As sketched above the first question to answer is the question about how many propositions there are in the collective. Both perplexity and consultation are needed here. We should not simplificate the number of propositions. And we should also recognize that every proposition should be consulted. Propositions have the right to get an honest process.



- A. A proposition knocks at the door of the collective
- 1. By means of perplexity we find out about the door-knocking proposition.
- 2. By consulting the proposition we let it tell its story.
- 3. We hierarchize the proposition with the other proposition in a way that as much propositions as possible get their place.
- 4. We decide to institute the proposition, or (B) to leave the proposition out of the collective when it cannot live together with the propositions we choose to institute.

Figure 4.1 The process through which propositions become actors.

After defining with how many propositions we are, we can rank the propositions in order. Here we need the requirements of institution and hierarchization. We should try to give

as much propositions as possible a place somewhere in the collective. For that we need first to hierarchize the propositions. During this step it can be needed to alter the proposition a little bit. The last step to take is the decision whether the proposition can be instituted in the collective, or that it has to be rejected and left outside. In figure 4.1 the powers and their requirements are listed.

In practice it could work like this. When the proposition *Renewal of the inner city* knocks at the door of the collective it is not real yet. Scientists may have found out that the renewal would be necessary for reasons of increasing traffic in the coming years. Moralists may have called politicians to look at the bad housing situations in the inner city. At this time the proposition has only gained some attention (perplexity). It is not real yet. Before the proposition *Renewal of the inner city* can get real it should run through the different stages of the powers to take into account and to rank in order. During this process the proposition can make it from idea to a vision on paper to a development plan, to a renewed inner city. During the phase of consultation scientists will do research on the housing facilities, the capacity of roads, the possibilities for renewal of certain buildings and such. Economists can show how the variable of the state of the inner city does affect the happiness of the people living there. Politicians will make a contribution to the process of consulting by making clear how (groups of) citizens think about it. During the consultation, everyone and everything that has a relation with the renewal has to be consulted.

When it comes to hierarchizing different propositions the economists can show how much influence a renewal of the inner city would have on peoples happiness in comparison with other variables. Politicians have to debate pro and contras at this stage. Science makes its contribution by searching for solutions which for example makes it possible that it's not needed to demolish houses in order to raise the capacity of the roads. In the third stage of the process, everyone is busy to find out whether the propositions can live together in the collective. During this stage the essence⁸ of propositions is discussed. During the phase of consultation everyone has different interpretations about the propositions. In the phase of hierarchizing these interpretations are discussed. The outcome of this discussion becomes the essence of the proposition ones it is instituted. A proposition can only be instituted when it was made visible by perplexity, was consulted well enough to make its point clear and was found to be able to live in the collective with other propositions.

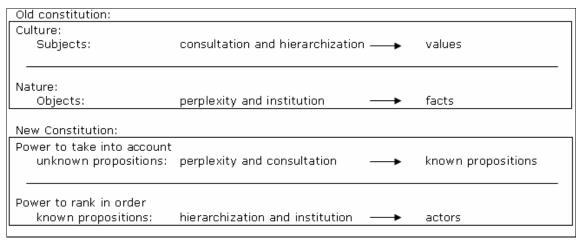
⁸ At the beginning of a process propositions do not have an essence. On the contrary: only after the process from proposition to instituted actor, propositions get their essence (Latour 2004:241).

There is not really an end of the process of examining propositions by the two powers. After the powers have done their work, we can only *scenarizate* the collective. A scenarization of the collective has to be seen as a temporally description of how the collective could look. It designates the border between what is in and what is left out (Latour 2004:248-249). A final judgement about reality is not possible. There can always be a second (and a third, fourth etc. etc.) round of discussion. This means that the collective at t=1 can look different at t=2. Everyone who is familiar with the work of Thomas Kuhn (1970) might recognise this argument. Although Latour does not mention the word paradigm at this point, I believe we can see the outcome of a *going through the powers* as a paradigm. As Kuhn (1970:66-76) states, a paradigm stays real as long as perceived problems can be solved with it. When we meet problems, which the present paradigm cannot solve, we are finding ourselves in a crisis. In practice thus a second round of discussion will only take place if there is a crisis in which revolutionary science, or other words: a complete new road to scenarization is used.

Latour does add two remarks to his theory, which I do not want to explore too much at this point. In the first place, we (the spokespersons) have to be aware of propositions that are left out of the collective. These propositions can be experienced by the notion of uncertainty in processes. This is actually very logic: we do not know what a proposition, we left out of the collective and therefore we did not rank in order, can do to us. We have to take this uncertainty into account. As Latour calls it: we have to be diplomatic in the conversation with propositions outside the collective. We should never underestimate them.

In the second place the collective includes a *power to follow through*. When we know more and more about reality, we have to archive this knowledge. This is because we do not want to start from the beginning every new day. Latour (2004:202) believes this is a task for administrators. However, the other disciplines do also contribute to the *power to follow through*. This power makes it possible to learn from what happened before.

We have now completed the transformation from the old Constitution to the new Constitution. The differences are presented in scheme 4.2.



Scheme 4.2: The old and the new Constitution.

4.5 Skills for searching a common world

In the last paragraph I sketched the process in which propositions become actors. We are now ready to look at Latour's proposal on how to fill in this process. In practice this does mean that we have to look at the same reality as the moderns did, but in a different way. In the modern view scientists were only busy with nature, politicians with the social world, moralists with foundations and economists with infrastructures (Latour 2004:137). In the non-modern Constitution they work together on every stage of the process. We already saw some examples of this in the last paragraph. In this way, politicians, scientists, moralists and economists work together towards an experimental metaphysics. One could argue this division of labour is a bit arbitrary. Scientists, politicians, moralists and economists did only exist in the old Constitution because of the existence of the separate domains on nature and culture. However in the new Constitution, starting with scientists, politicians, moralists and economists should be seen as good sense (Latour 2004:113). The terms should not refer to the precise professions: the social field is not reserved to politicians alone anymore in the new Constitution. It is even worse for the modernism-loving politicians: the social field itself does not exist anymore. As Latour (2004:148) puts it: "there is indeed a division of labour, but there is not a division of the collective." This division of labour should not be taken as something that cannot be changed. Latour is only sketching the present situation. It cannot be neglected that scientist and politician are two different jobs at the moment. However, when the new Constitution would find a place in our minds, scientists will act more and more like politicians and vice-versa.

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⁹ Experimental metaphysics is the search for what makes up the common world (Latour 2004:242). It is an alternative to the metaphysics of nature used in the old Constitution.

Scientists

In the new Constitution the sciences do not produce nature anymore. However they still seem to continue their job. As I interpret Latour, he does not propose to radically change the way scientists do their job. However, from empirical research (e.g. Latour 1987) he derives other conclusions about how to interpret the sciences. As Latour shows us, scientists make a contribution to every stage of the process described in paragraph 4.4. With their instruments in the laboratory they are able to detect new propositions (Latour 2004:137). In this way they make their contribution to perplexity. New phenomena in spatial planning are for example the shrinking cities in Eastern Germany. Demographic research is one of the means by which this can be made visible.

Scientists do also contribute to consultation by creating different tests and experiments. When scientists try to find out by which means the problems of the shrinking city have to be met, there will be very different types of research with probably different outcomes.

Every scientific fact or scientific invention has its own scientific spokesperson. In the way scientists show propositions as being part of a broader network, they make their contribution to the hierarchization of propositions. Science can change the possibilities for propositions to work together. With a technological innovation two propositions who could not live together before, can now. For example, bus stations can be much smaller since computer technology allows optimal use of space by showing the empty platforms to the drivers before they enter the station. After this technological innovation it is much simpler to create bus stations in inner cities.

Institution by scientist is obvious: scientists have to work very hard to make their findings reality. Scientists know better than anyone else how to make irreversible what has been contested for a long time, but has now transmitted itself into a compromise (Latour 2004:139-140; see also Latour 1987). When a planner would find out that people act differently in parks with and without flowers, he or she has to do experiments and a lot of extra research and publishing before it becomes a standard part of every *Introduction to city park planning*.

Scientists make a contribution to both powers in the new Constitution (Latour 2004:140). However, they also contribute to the separation of the powers. One the one hand scientists claim their autonomy of being able to do research. On the other hand they also recognize established empirical results. Scientists scenerizate by imagining the total common world through theories. This cannot be seen anymore as establishing

metaphysics of nature. In the new Constitution it is only a contribution to the experimental metaphysics of the whole Constitution.

Politicians

Politicians are always afraid of excluded voices who strike back. Therefore politicians defend these voices and present them to the collective. This is the input of politicians to perplexity (Latour 2004:144). Because politicians believe they always have to take into account the people that cannot afford a private car, there are always politicians who ask our attention for public transport.

To consultation their contribution is obvious. Producing voices like opinion-holders and concerned parties was already politicians' core business during modernism. And it still is a big contribution in the new Constitution. Without the voices produced by politicians consultation would be very difficult. Especially plans on city renewal are always discussed by politicians and citizens in local papers, on debate evenings and of course during the municipality Council meeting.

Like the others, politicians also supply their input to hierarchization. By making deals and compromises, everyone, what means every proposition, gets its position. When different groups of politicians have different wishes for the renewal of the inner city they have to make a compromise in order to be able to renew the inner city at all.

The politician contribution to institution is the production of an inside and an outside of the collective. Politicians make enemies by leaving them outside. They have to do so in order to get it on, to make decisions. For example the national government of Belgium could decide not to take part in constructing the High Speed Railway track between Paris and Amsterdam. By acting so, they make a contribution to the power of rank in order. More specific: such decisions are acts of externalization.

With Montesquieu, politicians themselves established the separation of powers. In the new Constitution politicians will defend the distinction between deliberations and decisions. Everybody and everything can be discussed. However, on a certain moment there has to be made a decision which excludes some propositions and includes others. Politicians contribute to the experimental part of Experimental Metaphysics by recognizing that it is not an unchangeable world we live in. On the contrary, politicians believe that they can only bring a provisional unity (Latour 2004:147). The search for

this provisional unity makes a fresh start every single day. A new planned railway that is part of today's Constitution can have disappeared by tomorrow.

Economists

With the term economists, Latour (2004:150) points at those who economize, the 'economic performers.' With their scale models of the common world in economic calculations economists contribute to the new Constitution. In the first place, economists are keen on the existence of relations between humans and non-humans. They have to search for propositions that are not already in the economic calculation, but could have a significant influence on the outcome. The width of a roadway might have significant influence on the number of cars passing by on that roadway every day. However, if this variable is not in the calculation it is up to economists to search for the missing proposition.

Economists do always play a role when it comes to consultation of propositions. The importance of certain propositions in the calculation will be examined through an articulation of interests by consumers, exploiters, experts, amateurs and others (Latour 2004:153). An example of this kind of research is the *Woningbehoefte onderzoek* (housing monitor) that is done every four year by the Dutch government.

When the variables are put into a calculation they have to be given a common language, so that they are commensurable. In the way economists weight the variables, they establish a hierarchy. This is their contribution to this requirement of the power to rank in order. An urban issue, economists could contribute to in this way, is the already mentioned example of cars passing by on a specific roadway. The number of cars passing by might be less depending on the number of houses near this roadway than it does on the number of nearby offices.

By getting reasonable outcomes of calculations, economists contribute to the requirement of institution. By leaving propositions out of the calculation they create an inside and an outside of the collective. When economists decide not to take the variable of travel time (expressed in money savings by travellers) into account, while calculating the profits of a new railway this can have significant influence on the question whether it will be build or not.

To separate the powers, economists make a distinction between the calculations inside of computers on the one hand, and what is really happening in the heads of people and

what is the power of the considered goods (Latour 2004:151). The above-described models itself are economists input to the scenarization of the whole: by describing the reciprocal relations between associations of humans and non-humans.

Moralists

In the new Constitution moralist are not only allowed to talk about values, but about all humans and non-humans. They have the right to add scruples to the work of scientists, politicians and economists to make it necessary for them to look for new propositions. This is their contribution to perplexity. When moralists ask attentions for the conditions in which animals have to live at farms, this can make it necessary for scientists, politicians and economists to change their view on how to cope with farms.

Moralists are also calling for the right of propositions to tell their story in their own terms. Farmers demonstrating against European cuts to their subsidies should, as moralists would suggest, not be asked what they think about global sugar production. On the opposite, they should have the possibility to explain their own situation. However, moralists always tend to support the underdog. When the European subsidies to farmers where to be raised, moralists would probably call for listening to third world farmers.

When it comes to hierarchy in the Constitution, moralists bring into debate that every proposition has the right to get its own position. There can only be one *best* Constitution. Moralists are the ones who remind scientists, politicians and economists to this. To the work of institution, moralists also add a bit of uncertainty. Whereas politicians and economists create an inside and an outside, moralists make clear that the excluded properties should have a second chance.

Whereas politicians see the need for decision-making after deliberation, moralists do turn this view the other way around. In the view of moralists every propositions has the right to be in the collective. Therefore they always call to cross the border between the decision-making of the power to rank in order and the deliberation of the power to take into account. After decision-making, the excluded propositions should not be forgotten, but get the possibility to be included again. Moralists make it also more difficult to scenarizate the whole. They break down the totalitarian visions of the common world, because there are always propositions that have been unlawfully excluded.

4.6 What can planners do?

Now that we know how the non-modern Constitution looks like, we have to ask ourselves what planners can do within this non-modern Constitution. As we can derive from Latour, we cannot see planning anymore as a scientific way of solving spatial problems, like we used to believe in the 1970s. We also cannot see planning anymore as deliberative processes, which outcomes are always feasible, which is in essence Habermas' belief. In other words: spatial change is neither about facts nor it is about subjects. Spatial change is about propositions. The only way to develop theories on spatial planning is to first develop theories on spatial change. When we know how changes in the spatial environment became reality, we can learn something about whether it is possible to plan these changes, and if so, how to plan these changes.

Requirements for spatial change research

We now have to address the question on the need for research on spatial change to meet the requirements set by Latour. I believe, in spatial issues we have to meet the same requirements as in other dimensions of the common world. We have to answer the question which propositions we have to take into account. Without the requirements of perplexity and consultation, we would not know where we are talking about. Than, we could not even answer the question how the propositions, which influences spatial changes, look like. When we want to be sure that we take every possible propositions into account, we have no other choice than to take the requirements of perplexity and consultation into account.

When we want to know more about spatial changes, and want to rank the propositions in this field in order, we have to meet the Latourian requirements of hierarchy and institution. As we saw earlier, the process of rank in order as described by Latour can also be used to explicate spatial issues. How much influence have technological findings on politicians? And: how much influence has a company, which is paying for the research, on these findings? These questions are also important when we want to find out more about the question *how did spatial changes become reality?* Therefore, in spatial change research, it is necessary to meet these requirements.

Experimental metaphysics on spatial change and planning

This section will be about how to create a scenarization on spatial changes. As argued above this is the first thing we have to do when we want to know more about how

changes in the spatial environment become reality. The six disciplines indicated by Latour (2004) can work together on spatial issues as well. Or from another point of view: a planner can act simultaneously as a scientist, a politician, an economist, a moralist, an administrator and a diplomat.

We have seen the examples of spatial issues in paragraph 4.5 already. We now have to ask ourselves how we can use the experimental metaphysics in spatial research. Implementing Latour's theory into the field of spatial science would mean that we have several things to do.

In the first place planning theorists have to recognize that it are not only the people we have called planners ever since who are contributing to spatial changes. Every scientist, politician, economist and moralist approaching spatial issues is contributing to the experimental metaphysics on spatial change. In this way the search for the 'right' definition of planner is not that useful. How the four above-mentioned disciplines provide their input to the experimental metaphysics was already sketched in the last paragraph in the form of some examples. In the next chapter this will be examined more deeply.

In the second place planning theorists have to be ready for another type of theory. In the old Constitution there is made a differentiation between 'objective' empirical/descriptive theory and 'subjective' prescriptive theory (Judge, Stoker and Wolman 1995). For planners in the old Constitution it was not enough to have an empirical theory on spatial change. Planners also needed prescriptive theory. A prescriptive theory is a theory concerned with best means of achieving a specific condition (Judge, Stoker and Wolman 1995:2). Such theories can also tell us something about the spatial conditions planning can provoke at all. Prescriptive theory is to be derived from empirical (descriptive) theory. However, at this point we face the problem that empirical theory in the old Constitution is largely metaphysical and that prescriptive theory has a normative component in it. Latour does not recognize the opposition of fact and opinion. Therefore empirical and prescriptive theory cannot exist in the new Constitution. A solution to this problem is presented by Hans Harbers (2005): theories like the new Constitution are rescriptive. Latour has developed a sociological theory that tries to reconstruct what has happened in the Constitution. This is neither factual nor normative (Harbers 2005). Developing a rescriptive theory is also a task for the collective as a whole. Again it are scientists, politicians, economists and moralists working on it together. Rescriptive theory develops during the process of propositions running through the powers of taking into account and ranking into order. Again, it the task of the administrators to make sure everything is being put on paper so that we do not forget the final result of our

deliberations, experiments and model making. Rescriptive theory can be used by planners as an alternative to empirical and prescriptive theory. It is the task of planning theorists to write down this rescriptive theory. Planning theorists are the administrators of spatial change. In opposition to Latour I do not believe that administrators can be absolutely independent from the scientists, politicians, economists and moralists. Planners who read about a certain theory may try harder to put practice in the direction that fits into the theory. This is what the Dutch government tries to do with communicative planning theory. New spatial policies like the *Nota Ruimte* (National Spatial Strategy) try to meet the requirements of a communicative planning process.

Furthermore planning theorists and planners have to stop being afraid of uncertainty. We should not longer try to rule out uncertainty. As Latour states, uncertainty is something that cannot be ruled out at all. Therefore we should take uncertainty into account. That would mean that we have to act like a diplomat. The spokespersons of the new Constitution need the diplomat to stay in touch with the uncertain outside of the collective (Latour 2004:213-214). When we accept a certain level of uncertainty we can also start to make experimental plans in order to try out new ways of changing the spatial environment.

Conclusions

From the above paragraph, we can derive the conclusion that the new Constitution can be used for spatial issues. As we saw earlier in this chapter, following the exact procedure and meeting the same requirements could lead us to a scenarization of spatial changes. Now we can see how spatial changes became common knowledge. The scenarization also makes it visible what influence planners have at these changes.

5. From paper to practice: some examples

In this chapter I want to show how the theory developed in chapter four can help us to understand and plan spatial changes. In paragraph 5.1 I would like to present Aramis. Aramis was an idea for a new kind of transportation that was unsuccessfully studied between 1969 and 1987. Because of the fact that Latour has used the results of this case study to set up the theory described in the last chapter, it should be easy to see how the theory could work in practice. In the second paragraph of this chapter I want to examine a case study done by Wolf Reuter on the project Stuttgart 21. In this chapter I try to show how scientists, politicians, economists and moralists are working together on an experimental metaphysics.

5.1 Aramis

Aramis is the French abbreviation for *Agencement en Rames Automatisées de Modules Indépendants dans les Stations* (arrangement in automated trains of independent modules in stations). It was a revolutionary concept for a transport system that combined the efficiency of the metro and the flexibility of a car. In his book *Aramis, or the love of technology* (1996) Bruno Latour describes how associations of technological explanations and sociological explanations lead to the cancellation of the project in 1987. As Latour puts it: the book is about the question *who killed Aramis?*

Aramis is a proposition. At the start of the project in the 1960s it was not more than just a great idea. During the project, Aramis developed to a proposition with a broader network. This network consists out of both humans (like the government and the company who developed Aramis) and non-humans (like motors, software and cabins). Both humans and non-humans have their conditions (Latour 1996:57). They require, they constrain and they provide.

As the regional planning commission DATAR invites the company *Automatisme et Technique* in 1969 to do a study on Personal Rapid Transit Systems, Aramis is born (Latour 1996:12). After Matra, a French high-tech company, bought the patent from *Automatisme et Technique* and also the Airport of Paris and the RATP (subway and bus company in Paris) joined the project, Aramis could be turned from an idea on paper into a running prototype (Latour 1996:46-50).

Turning Aramis into a prototype was done at Orly, near Paris. At a track of about one kilometre with one test station engineers were able to test experimental versions of Aramis. The main question to be answered in this phase was: will the story of Aramis hold together? (Latour 1996:81). At Orly it did. Aramis was able to transfer itself from an idea on paper to two working cars at a rail track which could couple and uncouple by means of non-material coupling.¹⁰ However, there are some discussions about its feasibility. The RATP believes Aramis should be intrinsic secure, whereas Matra believes that it can do Aramis only with probabilistic security.¹¹ Others did not believe that the system could get it from prototype to a running line in the Paris region at all. However, taken on the whole, Aramis did pretty well (Latour 1996:84).

After the Orly phase the project is slowed down. Everyone interviewed by Latour agreed on that (1996:84). There were different reasons for this waste of time. For example, at Matra they paid more attention to VAL, an automatic subway project that, as they believed, could be realised much sooner than Aramis. It also turned out that the complexity of Aramis was not negotiable for some of the organisations involved (Latour 1996:120). Nevertheless some things were done between 1974 and 1980. Site analysis at different sites, the development of a motor which had to be designed especially for Aramis and tests of the system main components (Latour 1996:13). It is also in this period that Aramis was simplified for economic reasons. There where more seats in every car, point-to-point service was abandoned and the cars were not going straight to their final destination anymore, but had to stop at several stations along the track. However, in spite of these simplifications, the moving cars themselves remained as complicated as before (Latour 1996:94).

In 1981 the teams of technicians working on Aramis are disbanded (Latour 1996:13). In spite of the technical progress that was made according to these technicians (Latour 1996:124-126) the project got into an interphase between 1981 and 1984. However there were some things done in these years. The possibility to develop Aramis and show it at the World Fair in Paris set the project back on the track (Latour 1996:13). In 1982 a new team was reconstituted from the VAL teams. They did site analysis in several cities

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1996:13).

¹⁰ Non-material coupling between cars means that two cars can drive very close to each other as if they were parts of a train. Non-material coupling is useful when the cars have to drive together a part of a certain track and than split up and approach different final stations.

¹¹ A system of intrinsic security would mean that the system is going down when there is any kind of problem. This safety system is used by the RATP in the Paris underground. It is the underlying philosophy of most railway companies. Probabilistic security would mean that the system would not break down completely when there is only one minor problem. This system is, as will be easy to understand, used in airplanes.

¹² As it turned out, VAL was indeed running already in 1983 in Lille, a city in the north of France (Latour

around France. It was also during this time that Matra proposed to build Araval¹³ instead of Aramis. However, the RATP did only want the nominal Aramis (Latour 1996:147). In spite of this position, Aramis got simplified again during the interphase. Now, Aramis was a pair of two cars, with ten seats each, mechanically coupled. Between pairs they kept the non-material coupling. In July 1983 the World Fair project was abandoned.

The last phase of the Aramis project started in 1984. Matra, the RATP, the regional government and the ministry of transport signed an agreement of building the Centre d'Expérimentation Technique (Centre for Technical Experimentation, CET). At the CET Aramis had to be build and tested. After the testing phase, the CET could become the first station of the first Aramis line at the Petite Ceinture. 14 In 1985 the first scale models of the, during the interphase, simplified Aramis cars were presented. One year later the first full-scale pair was presented. However, in 1987 the whole project was abandoned. It was Matra president M. Etienne who first proposed to end it (Latour 1996:7). According to him the perspective for Aramis looked very bad at that moment. He believed none of the other involved actors were supporting the project anymore (Latour 1996:9). Others believed the increasingly negative conclusions on the technical and financial aspects were the cause for Aramis' death. Another common belief was that the system died al by itself. Latour (1996:277-278) ends up with 21 different visions on Aramis and on the cause of its termination. His conclusion is that the cause of death is the fact that the involved organisations did not discuss these different visions. During the project the idea Aramis did not change except for some minor simplifications. The actors did not like to research, but only were interested in putting the idea into service. This is how Aramis was killed.

Contributions to the powers

During the project the four disciplines from chapter four have made their contributions to perplexity, consultation, hierarchy and institution.

The request of the regional planning commission DATAR to do a study on Personal Rapid Transit Systems can be seen as a political contribution to perplexity. Mr. Bardet, who is a scientist, invented Aramis by using the instrument of a so-called invention matrix (Latour 1996:27). This is the scientific contribution to the requirement of perplexity.

¹³ Araval is a transit system that would have been automated (like VAL), but without most of the difficult technological features of Aramis.

¹⁴ The Petit Ceinture is an old rail line in Paris that is now out of order. It was meant to be the first Aramis line (Latour 1996:310).

Consultation was not done properly in the process Aramis has gone through. However, Latour did this afterwards in his post-mortem study. Every actor has been interviewed. The actors themselves decide which actors should be taken into account. When an actor comes up with a name, he or she has to be consulted as well. In the Aramis case this goes from the engineers working on the prototypes of Aramis to presidents of the RATP. As it turns out every actor did see Aramis in a different way. For example, the Airport of Paris did only believe that Aramis could be used for short distance tracks and would therefore be sufficient for use on an airport. They never believed in Aramis as a Personal Rapid Transport (PRT) type of transportation, whereas the other involved parties did treat it as such (Latour 1996:47).

During the research there has not been found any proof of discussion on the characteristics of Aramis. Over a period of almost twenty years these characteristics stayed the same, apart from some minor details. However, in the theory on the new Constitution this is a relevant part of the process. When Aramis had gone through the process of the power to take into account and the power to rank in order, the different visions on Aramis should have been discussed during the phase of hierarchization. Then these visions could have converged into one vision of what Aramis is.

Aramis never got instituted in the way it was meant to be. By the involved actors Aramis was treated like a fact in the old Constitution. They wanted to go quickly from perplexity to institution. The steps of consultation and hierarchy were skipped. Only when it came to 'social' factors, like questions about whether the Budget office was going to give money or not, the steps of consultation and hierarchy were followed. In other words: the involved organisations in the Aramis case behaved as if they found themselves in the old Constitution of modernism.

Conclusions

Latour concludes that nobody in particular can be accused of killing Aramis. It are not pure technological reasons that stopped the project. Neither are it only social factors. None of the reasons mentioned by the interviewed actors can explain the failure of the project. The VAL project had to deal with the same Budget Office for example. And there are lots of projects who made it to realisation although their feasibility was, like Aramis, only demonstrated by prototypes.

And it is also not enough to say that due to both technical and social factors Aramis did not make it, because the cause of death as indicated by Latour is neither technical nor social. The absence of love of technology, as being the cause of death, is not something that is purely technical. Neither is it purely social. Maybe we can use the word sociotechnical for the kind of reason for the failure of the Aramis project. When there is love of technology among the scientists, politicians, economists and moralists involved in a certain project, that should mean that they try to change the proposition in such a way that it can become a member of the collective. As we have seen in chapter four, this is not only about innovations. It is also about making deals and compromises on the essence of Aramis. Furthermore it is about comparing different propositions by making them commensurable through models. And it is also about discussing whether the proposition gets the right place in the hierarchy of the collective.

5.2 Stuttgart 21

In Germany, Wolf Reuter wrote about the Stuttgart 21 project of the Deutsche Bahn (German Rail). From the empirical results of Reuter's research, it is possible to show how these empirical results can lead to conclusions which lead us into the new Constitution.

As mentioned already in chapter three, the project Stuttgart 21 is about replacing the terminal station in Stuttgart by an underground through station. Before the process started in 1994, there had been several plans about how to deal with the High Speed Railway Lines (HSRL) in southern Germany. In 1985 there were plans to build a HSRL that would leave Stuttgart out of the international network. In 1989 a Stuttgart traffic expert proposed to build a new through station in Stuttgart. Deutsche Bahn planned to build such a station in 1992. However, in 1994 they decided not to build a new station, but replace the existing central station of Stuttgart by an underground station. For the city of Stuttgart this project would mean a large area near the inner city, which was only used by Deutsche Bahn till then, would become available for spatial development (Reuter 2001:29). This was even more important because of the geographical position of Stuttgart. The city finds itself in a wide valley. In this valley the possibilities for further expansion of the city were used up. However, the availability of the area of Deutsche Bahn brought new chances for expansion near the inner city.

After the first ideas were presented in April 1994, the project partners Deutsche Bahn and the city of Stuttgart worked out a *städtebauliche Rahmenkonzeption* (framework conception concerning town construction) (Reuter 2001:31). This framework was presented in September 1994. It showed the possibilities for building a new part of the city and the development possibilities for the long-distance and suburban railway traffic.

The third step in the planning process departed where the framework conception finished. In a *Gutachterverfahren* (consultant procedure) six bureaus for planning did some research whether the framework conception could be realised. They also made some sketches on how this could look like. At the same time, Deutsche Bahn had ordered a *Machbarkeitsstudie* (feasibility study). This study concentrated on the technological feasibility. The outcome was presented in January 1995: "Stuttgart 21 is technically feasible and it brings us advantages for urban development and traffic" (Reuter 2001:32). However some problems could arise when it came to eventual environmental damage to the sensible zones within the area. After the feasibility study was done, Deutsche Bahn ordered an extension to this study. This was called the *Vorprojekt*. Everything was positive according to the researchers. Stuttgart 21 was the synergy concept.

Based on the consultant procedure, the feasibility study and its extension, in November 1995 the *aktualisierte Rahmenkonzept* (updated framework concept) was presented. It presented the foreseen use of the area, and it divided the area into three subsections. In section A services like restaurants and shops were foreseen. In section B and C houses had to take the biggest part of the available space. At the same time the project partners (Deutsche Bahn, the city of Stuttgart, the land of Baden-Würtemberg and the federal government) signed a *Rahmenvereinbarung* (agreement of main principles). In this agreement some important decisions were taken (Reuter 2001:33). The financial contribution of the parcels, which are to be sold by Deutsche Bahn, to the project is fixed. Also some minimum requirements are set. The area should contain housing for at least 11.000 inhabitants. Offices for at least 24.000 jobs had to be included in the plan.

After the agreement on the main principles of the whole project had been signed, the city of Stuttgart started a *kooperatives Gutachterverfahren* (cooperative consultant procedure) for the area in which the building of offices and houses was planned. Ten bureaus for planning took part in the procedure. The winning concept did take the possibility of economic disappointment into account. It proposed to build neighbourhoods which could survive on their own. Based on this winning concept, the city of Stuttgart designed an *entwurf des Rahmenplan* (draft outline plan). The draft was put into a process of citizens' participation. Four hundred citizens took part in this process. Several additions were made to the draft outline plan. In July 1997 the definitive outline plan was determined by the municipality Council (Reuter 2001:33).

For the design of the new underground through station a competition was started up by Deutsche Bahn in February 1997. Bureau Ingenhoven won this competition with its "spectacular construction" (Reuter 2001:33). After the outline plan in July, the plan for the station was presented in October 1997.

Although the plans looked really great from the project partners' point of view, it had also its critics (Reuter 2001:34). Three kinds of arguments were used against the plans. In the first place there were doubts about the necessity of a through station in order to connect Stuttgart to the European net of High Speed Railway Lines. Secondly, it was argued that the huge amount of new offices near the old inner city would negatively influence the economic situation of this part of Stuttgart. Lastly, the planning culture in which the plan was created was criticised.

After the plan making from 1994 till 1997 the project slowed down (Reuter 2001:34). However, the project is still running. The first offices have been build. The latest forecast has set 2013 as the year in which the project should be finished (Deutsche Bahn 2005).

Contributions to the powers

Although Reuter is focussing on discursive and power acts, we can also see the different contributions to the four requirements defined by Latour. Because Reuter did his study not as thoroughgoing as Latour did, or in any event he did not publish it, I can only present the examples Reuter mentioned in his article on the case (see scheme 5.1 for an overview).

The task of perplexity means in this case the task of making the proposition *Stuttgart 21* visible, and to let it speak. The most obvious contribution is made by Prof. Heimerl when he made a proposal that also included the building of a through station in Stuttgart. As a scientist, Prof. Heimerl has the instruments to detect this, till then invisible, proposition. Only while the Faculty of Architecture of the University of Stuttgart made study-sketches of the new station, the possibilities of the large area around the central station of Stuttgart came into the project. This is also a scientific contribution to the requirement of perplexity. A political contribution is the recognition that Stuttgart should be connected to the European net of High Speed Railway Lines.

Consultation was done by different means in the Stuttgart 21 case. Consultation is the stage in which the spokespersons of Stuttgart 21 present how the proposition looks like. The political contribution to the consultation was to make clear that every involved opiniongroup could say something on Stuttgart 21.

The process of hierarchizing is still ongoing, because the plan has only partially been turned into real spatial changes already. During the phase of hierarchizing, the proposition Stuttgart 21 changes. Only after research of scientists Stuttgart 21 becomes the synergy concept. And this research was only ordered after political and moralist voices demanded to take environmental issues into account. Another example is the moralist bringing in his or her objections. What about the economic situation of the existing city centre when 24.000 jobs are created in the neighbourhood? Can it not be a little less? However, the moralists lose against other contributions to the work of hierarchizations. For example the contribution made by the economists make formulas in which money is much more important than the economic situation in the inner city when it comes to the question whether Stuttgart 21 can be realised or not.

	Scientists	Politicians	Economists	Moralists
1. Perplexity	Development of ideas.	Recognizing the		
	Study-sketches.	importance of the fast		
		railway's for Stuttgart.		
2. Consultation	Showing how Stuttgart	Making clear that every		
	21 could look like	involved opiniongroup can		
	through studies.	say something on		
		Stuttgart 21.		
3. Hierarchy	Making clear how	Discussion pro's and	Making the relations	Defending the underdog
	Stuttgart 21 relates itself	contras.	between different	(other propositions who
	to other propositions		variables	fear the existence of
	(e.g. environmental		commensurable.	Stuttgart 21).
	issues).			
4. Institution	Building, showing that it	Decision making on		Opposition against
	parts of Stuttgart 21 has	development plans.		instituting, because of
	been build.			the suffering of other
				propositions.

Scheme 5.1: Some examples of the contributions made to the proposition Stuttgart 21.

Institution of the Stuttgart 21 proposition is only partially fulfilled already. It became instituted through the contribution of politicians who decided to get on with it after the debates in phase three. The scientists, who we are talking about in a very broad sense here, make their contribution by finally making real buildings, streets and squares out of the development plans.

Conclusions

Whereas Aramis was not killed by non-humans or humans, Stuttgart 21 did not succeed because of only natural or only cultural factors. We cannot hold the conclusion that it was because of political decisions that a part of Stuttgart 21 made it already to real buildings,

streets and squares. Lots of development plans did not make it to copy itself into reality. However, it would also be too fast to conclude that it is a combination of natural facts and cultural values that made Stuttgart 21 possible. In Stuttgart 21 we discover a love of technology. The politicians involved did not only talk about subjective opinions, they also constructed reality. And the scientists? They worked together with the politicians, the economists and the moralists in order to create reality rather than they searched for absolute facts. The case of Stuttgart 21 also shows that the different disciplines do not stick to the separation of the powers set up by Latour. For example, the consultation of citizens took place when the political discussion on pro's and contra's was already captured in a first draft of the outline plan.

6. Planning spatial changes

In this chapter I plan to draw conclusions from the arguments made in the previous chapters. In the first paragraph I will summarize and discuss the answers on the research questions from chapter one. In the last paragraph I will make a final statement on the basic direction of a new theory on spatial change and planning.

6.1 Conclusions and discussion

What is the message Habermas wants to deliver in his theory of communicative action?

In chapter two I started to talk about the opposition of philosophical modernism and postmodernism. After Kant and Marx, modernism became the leading theory in philosophy and science. Important elements of modernism are the distinction of nature and culture, and the belief in technological feasibility and progress. However in the late 1970s modernism found itself in a crisis. From this crisis postmodernism emerged. However, philosophers like Jürgen Habermas were not about giving up modernity. Habermas invented a theory of communicative action to save the project of modernity. The theory of communicative action is a normative attempt to introduce rules for communication among actors that want to come to an agreement.

Which alternatives for Habermas' theory of communicative action have been suggested by his critics?

Foucault is one of the philosophers who has criticised the work of Habermas. Whereas Habermas is the more modernistic thinker, Foucault has opposite ideas. According to Foucault it are power systems that determine how actors behave in relation to each other. Power system can change through resistance. However, a world that is not determined by power relations is impossible, according to Foucault. He also shows that it is not difficult to replace the fundamentals on which modernism is based by other fundamentals. Replacing common knowledge has been done over and over through history.

In chapter two we also met Richard Rorty and Bruno Latour as philosophers who are somewhere in the middle. Rorty can be described as a thinker who believes Foucault is

right on the issue of legitimacy of common knowledge. However, he shares Habermas political engagement. As Rorty believes, we do not need to legitimate the liberal position of Habermas by philosophical means. Its legitimation can be found in literature. Bruno Latour has tried to not only put the best of modernism and postmodernism together, but also take pre-modernism into account. Latour wants to break down the separations between humans and non-humans. His aim is to show that facts are constructed in the same way as opinions are. His alternative to both modernism and postmodern solutions, is to develop a new Constitution which scenarizate the world based on experimental metaphysics.

How has the theory of communicative action been interpreted, changed and used by planning theorists?

When we want to use philosophical fundamentals to develop an alternative to contemporary planning theory, we have to examine first which philosophical fundamentals set the basic assumptions of planning theory. Obviously, the leading theory on planning now is communicative and collaborative planning. For the biggest part this theory is influenced by Habermas' theory of communicative action. As we saw in chapter three, Forester and Healey use Habermas' criteria to develop and use heuristic questions for planning which should lead to *power-challenging* planning. Communicative planning theorists like Healey and Forester claim to take also planning practice and the philosophy of Michel Foucault into account. In chapter three, I have argued the influence of Foucault is of little importance in their work.

How can alternative philosophical fundamentals be used in order to get an alternative theory on spatial change?

In chapter two I have introduced the notion of synthesis as an instrument to canalize the search for an alternative theory on spatial change. When we face opposite theories (thesis and anti-thesis), we can make progress by searching a synthesis. In the case of philosophy we can see modernism as a thesis. Postmodernism is of course the anti-thesis. Latour has even added a second anti-thesis: the one of pre-modernism.

When we look at spatial planning and spatial change, the above-mentioned communicative planning theory is the thesis we are approaching. Planning alternatives based on postmodernistic philosophy are emphasized by Bent Flyvbjerg. Based on the philosophy of, among others, Michel Foucault and the Aalborg case study he concludes that power systems are of big influence in planning projects.

From the argument in paragraph 3.4.2 we can further derive the conclusion that there is already a search for synthesis of modernity and postmodernity. However, whereas De Roo takes another definition of postmodernity as I would like to emphasise, Reuter does not take pre-modernism into account. As Latour (1993) shows us, we do not only have to take modernism and postmodernism into account. In addition of this we also have to look at pre-modernism.

As I have sketched in chapter four, Latour wants to get rid of al metaphysical prejudice of the old Constitution. Then the proposal is made to include propositions in the democratic procedure. Propositions are associations of humans and non-humans. As Latour argues humans and non-humans are never on their one. They are always accompanying each other. For example, every invention comes with its inventor. Proposition do not have an essence from their birth. Once propositions have been discovered they go through a process of consultation of their spokespersons and hierarchizing. The stage of hierarchizing is needed to discuss what the proposition is. Its essence is not a given, but it has to be constructed. When it turns out that we can live together with the new proposition, it can be instituted. Otherwise it has to be rejected.

During the process there are four disciplines that make a contribution to the process. Scientists, politicians, economists and moralists have their part. This is one of the weak links in Latour's theory. Why not make a group of citizens? Why only economists and not social sciences as a whole? Latour takes the division of labour among these groups as common sense. However, one could argue that, even in a world without metaphysics, good sense cannot be the one and only argument for dividing the labour into four divisions. However, it has to be mentioned here that Latour is not creating a new metaphysics. Also the requirements of the new Constitution itself are just a preliminary scenarization. Furthermore, the four disciplines are used with a broad conception of the definition. Using this conception everyone who is using models to make a contribution to the process from proposition to actor can be seen as an economist. And the leaders of the labour unions can be seen as politicians in the way they make their contribution to the requirements of the new Constitution. So for now we cannot do anything else than take the categories of Latour as good sense. However, when someone comes up with a new idea (proposition), it has to be examined.

A second remark is the separation of the powers. Latour takes this separation as being important because it helps us to take into account as much propositions as possible. When the powers are separated, the steps of perplexity, consultation, hierarchization and institution do follow each other up in time. However, from the Stuttgart 21 case we can

derive the conclusion that the separation does not last when the theory is put in practice. This would mean that the new Constitution cannot guarantee that as much propositions as possible are taken into account.

In the last place there can be made a remark on the position of the administrators (the planning theorists). According to Latour the administrators should have no influence on the process they describe. However, that would mean that authors like Healey and Forester do not have an influence on what is happening in planning practice. In fact the opposite is happening (as we can derive from De Roo & Schwartz 2001:25-27).

Can this alternative theory on spatial change explain practice?

After examining two examples from spatial practice, it is not possible to give a final answer to the question whether the new Constitution can explain practice or not. However, there can be thoughtfully concluded that there is a big chance that it can contribute something. The examples of Aramis and Stuttgart 21 are pointing in that direction. Except for the above-mentioned remarks it seems to be able to reconstruct the story about Stuttgart 21 in such a way that it fits into the theory of the new Constitution. In the case of the story about Aramis, telling the story in such a way that it fits into the new Constitution did lead to concrete answers to the question who killed Aramis.

6.2 Planning in the new Constitution

It has become obvious that what is called postmodern planning by theorists like Healey, Forester and De Roo should be seen as Habermasian modernism from a philosophical point of view. However, it has to be mentioned that the three named planning theorists do move in a more postmodern direction (see for example Forester 1989 or De Roo & Porter 2004).

I have tried to find out whether taking other philosophical fundamentals than Habarmas' theory of communicative action can help us to understand spatial change. When we follow Lyotard's view on the postmodern condition of society, planning would have no chance at all to survive. However, when planners take philosophy serious we cannot leave out Lyotard's view on postmodernity. Neither can we ignore the criticism on the project of modernity.

It is at this point Bruno Latour comes into play. He has offered us a way out of the dilemma, by proposing an experimental metaphysics. When we take Latour as the leading fundament, we do not face the problems Healey, Forester and De Roo do. To be more specific: we do not face the power-blindness of Habermas' critical theory. Neither do we have to give up planning as a whole, as Lyotard suggest we are doing in the crisis after modernism. Al we have to do is get to deal with the experimental metaphysics Latour is sketching. This will offer us a framework in which it is possible to explain the role and mutual influence of humans and non-humans in the planning process. We do not have to take this influence anymore as an autonomous phenomenon outside any theory. Furthermore the new Constitution creates the possibility to take both discourse and power into account. However, Latour stays on a highly abstract level here. When we want to say something on how the concepts of discourse and power interact in the new Constitution we need other authors than Latour. At this point contemporary planning theorists come into play. Healey, Forester and De Roo can tell us something about the discourse story, whereas Flyvbjerg and Richardson write about the influence of power. The tree elements of the new Constitution are listed in scheme 6.1.

The new Constitution (Latour)					
Mutual influence between	Discourse (Healey, Forester,	Power (Flyvbjerg, Richardson)			
humans and non-humans	De Roo)				
(Latour)					

Scheme 6.1: The new Constitution covers three sources of knowledge.

I have now tried to make clear what the new Constitution could add to contemporary planning theory. As we can derive from scheme 6.1 this can be found in the way the new Constitution makes it possible to say a word on the mutual influence between humans and non-humans. Furthermore it provides a framework in which both power and discourse can be used to explain spatial changes. On the other hand: based on two examined case studies there can be made some remarks. However, I believe that also after these examination it is worth a try to use Latour as a philosophical fundament for a theory on spatial change.

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