

Title: “The effects of informal power relations on social justice in big infrastructure projects”

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Corāj:

□ πρ□σβυ, Φο□β□ν τ□ ο□ καταισχ□νεις λ□γοις,
τιμ□ν τε Βρ□μιον σωφρονε□ς, μ□γαν θε□ν.

Lines 328-329 from Euripides' Bacchae

PREFACE

This thesis symbolizes the ending of the Master of Environmental and Infrastructure Planning at the University of Groningen. The topic for this thesis resulted from a personal interest in the field of social justice. Furthermore, I had a distinct feeling that informal power relations did have an effect on social inequalities. Nowadays, both of these themes get relatively little attention within infrastructure planning or planning in general. There may be a reason for this: social justice and informal power relations are rather vague elements. Research into these themes can therefore be rather challenging. As a result, people might be hesitant to explore them.

A thesis that does include the fields of social justice and informal power relations has to address two issues: first of all, a typology should be created that shows the different characteristics of these themes. This is most of all a theoretical exploration. A conclusion of this is formulated through a proposition. Secondly, research should be done, based on a hypothesis, to find out whether these informal power relations are indeed relevant. If so, then the proposition would explain the theoretical consequences of these impacts on social justice. This thesis has followed these two steps. In the end, it has become a relatively theoretical work. Research has been done through in-depth interviewing, but the number of interviews is limited. The conclusions of this thesis could therefore be strengthened with more future interviewing.

Some further explanation is now required regarding the subtitle of this thesis. First of all, this thesis resembles a musical sonata. The sonata form roughly follows four stages: first of all, the work starts with an *introduction* (the introduction). Secondly, the main themes are worked out in the *exposition* (theory chapter). These themes are developed further in the *development* stage (case study). Finally, the *recapitulation* stage links back to the main themes that were brought up in the exposition phase (analysis and conclusion). The piece has ended by linking back to the main themes that started the thesis. In a way, the art of spatial planning in general is similar to composing music (geographer David M. Smith also uses a similar metaphor¹): a composer works around with different voices (stakeholders), which have different melodic lines (stakes or goals), and combines them into chords (agreements) to create harmony.

In line with this, I would like to thank my piano teacher for his musical guidance. One can learn much about universal structures through analyzing musical compositions. And finally, I would also like to thank Justin Beaumont for his guidance as thesis supervisor. In doing so, I'm not following Umberto Eco's advice: he argues that thanking your thesis supervisor is nothing more than bad taste².

July 2007,

Diederik de Koning

¹ David M. Smith (2001), "On performing Geography", *Antipode, a radical journal of geography*, vol. 33, no. 2, p. 141

² Umberto Eco (2005), *Hoe schrijf ik een scriptie?*, 12th edn., Amsterdam: Pockethuis (p. 217)

SUMMARY

The goal of this thesis was to find out whether informal power relations have an effect on social justice within big infrastructure projects. In this goal, three main themes can be distinguished: social justice, infrastructure planning, and power relations. In this case, informal power relations are those power relations that are not formally fixed or visible. First of all these themes were individually discussed in the theory chapter. Based on the theory, the relationships between these themes were explained. A pragmatic approach was used to avoid the subjective valuation of any of the different standpoints that were discussed in the theory chapter. In this approach, a distinction was made between the rational Apollonian element and the emotional Dionysian element in humanity.

The theory formed the basis for the research. The Methodology chapter showed that the goal of the research was twofold: firstly, research should be done to find out whether informal power relations actually affect the decision-making process of big infrastructure projects. This formed a hypothesis. In-depth interviews were done to test the hypothesis. Secondly, the theoretical proposition explores the implications that these effects have on social justice. These two parts bridge the gap between theory and practice.

The *Zuiderzeelijn* project in the Netherlands was chosen as the main case for this research. This case was chosen because it seemed to have relevant connections with the three themes of the thesis: social justice, because the project's initial goal was to address social inequalities. It involves infrastructure planning, because it is a mega infrastructure project with all its complexities. And finally, there was the assumption that informal power relations were at play during the decision-making process.

The presentation of the research was then split up into three parts: an introduction, the presentation of results, and the analysis of these results. The introduction explores the timeline of the project: it discusses the different stages in the decision-making process of the project. The introduction forms a formal or Apollonian review of the case. The second part discusses the views and standpoints of the different stakeholders. The categorization of stakeholders roughly follows the categorization that was made in the theory chapter. The different informal power relations are discussed as well. This forms the informal or Dionysian review of the case. Thirdly, both the proposition and the hypothesis are analyzed in the analysis chapter of the research.

We can conclude that informal power relations have had an effect on the decision-making process of the *Zuiderzeelijn*. Most of the stakeholders were somehow involved with informal power relations, and we have also seen that the sentiment or *Zeitgeist* at the time influenced the decision-making. The two main types of power, as mentioned in the theory, were used in practice: that of collaboration and that of protesting. Based on these results, several implications on social justice were pointed out. First of all we can conclude that the Dutch government takes a conservative standpoint regarding infrastructure planning at the moment. This means that projects in the *Randstad* are preferred because large amounts of people are favoured in this way. However, social infrastructure inequalities do grow as a result. Also, we can see that informal power relations like lobbying have made the goal formulation and problem-definition oblique. This vagueness adds to the conservative standpoint of the national government. Finally, it can be argued that it was not wise to add experts to the Critical Review Team who had a strong opinion before the team's formation. Not because these experts are to be considered subjective, but because their addition to the team results in inevitable suspicion by other stakeholders.

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1.: INTRODUCTION

This chapter will firstly discuss the reason why this thesis was written, and how it contributes to the current discussion within the field of planning. A conceptual model will be given to explain the rationale behind this thesis subject. The thesis as a whole is based on an underlying vision, which will also be discussed in this introduction. Finally, the practical structure of the thesis will be outlined.

1.1.: Trigger

Manuel Castells made an often-used distinction between what he calls the *space of places* and the *space of flows*. The space of place refers to the physical space we live in, and the space of flows refers to the telecommunication or infrastructure that results from current globalization. These two spaces are interconnected: while we create infrastructure, infrastructure changes the world around us. In this case, the term infrastructure can range from telecommunication systems to physical railway lines. If a faraway village in the country has few infrastructural connections, then this may have advantages as well as disadvantages (see for instance: G. de Roo et al., LILA). The advantages of infrastructure are clear: it, for instance, creates opportunities for employment and education, and increases the accessibility to services. Transportation is needed. Without it, we cannot go to work or rush to a hospital when needed. Without it, we have less chance to find a suitable job or simply have fewer possibilities for social contacts. Somehow, feelings of injustice arise when we see that people have different possibilities based on their accessibility to infrastructure. Their space of flows is affected by their space of places. We can see that transportation is important in our current lives, and that it may well be necessary for our social life as well (Lucas, 2004, p. 10).

Due to globalization and the use of the Internet, it was thought that physical distances (space of places) would become unlocked from accessibility (space of flows): one would be able to work at home via the Internet or buy one's groceries over the net. This forecasted shift was called *the death of distance*. However, this shift never came into effect: companies still rely heavily on face-to-face contacts, and thus on their accessibility. Also, the number of services that is accessible within walking distance declines (Lucas, 2004, p. 10). Small grocery stores around the corner vanish. We increasingly rely on forms of transport in our lives.

There are mainly two types of transportation: *public transportation* (rail infrastructure projects, buses, taxi, etc.) and *private transportation* (car, bicycle, walking, etc.). A lot of discussion is going on as to which type of transportation should be favoured. On the one hand, liberal thinkers may argue that one has the right to own and use the car freely. In this case, roadways are seen as a *merit good*: a good that everyone can use openly, and the use of it will not harm the use by others. However, traffic jams occur more frequently and heavily these days. Roadways are no longer a merit good, since one's access to the roadway might cause someone else to suffer from a traffic jam. This in return also effects the surrounding ecological environment. To prevent this, one could for instance introduce methods of paying for road access. This was done in London, where a tax system has been introduced: one now has to pay in order to make use of the roads in the city of London. This does mean however, that wealthier people are able to use the roads while less wealthy folks may not. Currently there is a lot of debate going on about the global warming and preventing the emission of greenhouse gasses. Cars generally pollute more than public transport, with the exception of especially the

airplane. Also, oil is becoming ever more scarce, and therefore gas prices are rising increasingly. The use of the car will become more costly. People that have little money to spend might not be in the situation to own and use a car. Again, the space of flows (transportation) is affected by their space of places (distance to travel: the cost of it).

Another option is to emphasize the use and availability of public infrastructure. Public infrastructure can reduce local pollution issues, and can offer a cheaper solution for less frequent trips. As was mentioned, not everyone has the financial capabilities to own and drive a car. These people rely on public transport. In the Netherlands, a proposal was made by *GroenLinks* earlier this year (Duyvendak, 2007) to ensure by law that everyone has decent access to public transport. Following Dutch constitution, one has the right to a decent home. Should there be such a right for public transport as well? This raises the interesting question whether the government should intervene and how.

Due to the *communicative turn* in the planning system, more planning is done in a communicative way (collaborative planning). There are various reasons behind this shift. First of all, it allows people to participate in the open planning process. It is therefore a more democratic process. It might also be more effective on regional level because of the complexity of the planning: a single planner cannot know all the facts that are needed to fully grasp the planning problem. One could also argue that truth lies within the social networks, or how the stakeholders view the world. Collaborative planning also creates more willpower. However, there seems to be a downside to this approach as well. Due to the complexity of projects, the government becomes afraid to make a decision. This appears to be the case in the Netherlands. Within architectural competitions, citizens increasingly often have a last say through a referendum. Nowadays, people vote not only for politicians, but also for their favourite projects. Has the Dutch government become afraid to make a final decision?

On top of that, the Dutch government has had some traumatic experiences regarding big infrastructure projects. The *Betuwelijn*, a railway link from Rotterdam to Germany, has faced a lot of criticism. Also the High Speed Rail link towards Belgium has become a very costly project. This might have been one of the reasons why the government is now very cautious with the *Zuiderzeelijn* project. In line with this fear, the ministry has set up a *Critical Review Team* to assess the importance of the project. The team is a combination of experts on the field of planning and infrastructure. There are reasons for politicians to be cautious, but what are the negative effects of this caution?

Collaborative planning assumes that truth is constructed through social relations: it is not an objective fact. This emphasizes the importance of working together with stakeholders. There are formal relations that bind these stakeholders: for instance, a company that wishes to build a railway line relies on the permission of the government. A government that wishes to do an assessment of the need for that railway line will order a consultancy company to do a cost-benefit analysis. These are formal relations that are clear. There are, however, also informal relations hidden underneath these visible formal relations: was there any lobbying by the private sector? Did the consultancy company deliver an analysis that was favourable to the government, so that they might get more orders in the future? Did the government fear to make a decision because it collided with the public opinion as brought by the media? What effects does this have on the decision-making, and eventually social justice? Also, if a private company offers to build an infrastructural link, and is willing to pay partly for it as well, then the government might be tempted to permit the project. The company will, however, want to make a profit,

and will therefore most likely build infrastructure that is financially interesting. Does this then affect the inequalities of transportation possibilities between regions? Is this unjust?

The different elements that were discussed above formed the main triggers for writing this master thesis. These elements can roughly be divided in three main themes, being:

1. Social justice
2. Infrastructure planning
3. Power relations

The goal of this thesis is to find out what the connections are between these themes and research whether or not these relations exist in current projects. Based on this goal, a hypothesis and proposition were created. The research will thus be twofold: firstly, the hypothesis will address the impacts of informal power relations on the decision-making process of big infrastructure projects. Secondly, these impacts are analyzed through the proposition, to see what the implications are for social justice. The hypothesis and proposition can be found in Box 1.

Finally, a case study has been done to test the hypothesis and proposition. The *Zuiderzeelijn* project in the Netherlands forms this case. It is a railway project that would connect Schiphol Airport with the city of Groningen in the north of the country. There are three main reasons why this case was chosen: first of all, the decision-making process has been lengthy and interesting. Secondly, the line was to be built because of social inequalities between the north and the rest of the Netherlands. Thirdly, there was a distinct feeling that informal power relations affected the project.

Box 1: goal of the thesis

Hypothesis:	<i>Informal power relations affect the decision-making process of big infrastructure projects.</i>
Proposition:	<i>Informal power relations affect social justice through inequalities within infrastructure.</i>

1.2.: Conceptual model

For a better understanding of the different aspects of this thesis, a graphical representation of the relationships between the different elements is added below (see Figure 1). It aims to show the long path between the need for action (start) and the *outputs* or *outcomes*. Outputs are formal plans on which the outcomes are based. The outcomes form the actual implementation of the formal plans or outputs.

This thesis wants to point out the long practical stretching of the decision-making path. This process starts with the need for infrastructure (based on the social inequalities) and towards the outputs (policy plans) and outcomes (the infrastructure itself). The path leads through the collection of data, collaboration with stakeholders, assessment of the impacts and deciding about the policy. This could lead to the creation of footloose projects, where it is unsure what the initial goal and vision of the project actually was. The question mark in the model addresses this issue: do the outputs or outcomes match with the original need for infrastructure, and therefore the original problem of social

inequalities? And what is the role of the stakeholders in this collaborative planning process? These questions will be answered in this thesis, and particularly in the research part where the hypothesis and proposition are tested.

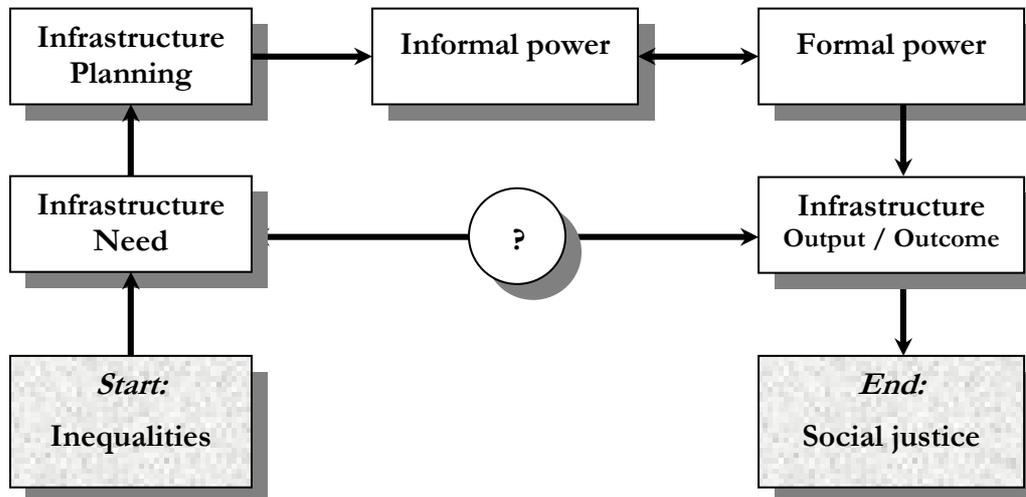


Figure 1: the conceptual model

1.3 .: **Relevance**

Writing a master thesis and doing a research should add relevant data to a current topic. So what is the relevance of this thesis? First of all, big infrastructure projects, sometimes called mega infrastructure projects, are a hot topic. Big infrastructure projects seem to appear increasingly often. The European Union creates policy for Trans-European Networks: infrastructure projects should not just be national projects, but should also be international or transnational. This is a result of the globalization and the rise of the European Union. There is a need to link different countries with infrastructure. Examples are the Chunnel between France and England, and the Øresund link between Denmark and Sweden.

However, as Flyvbjerg points out (Flyvbjerg, 2003, p. 3), there is a paradox at work: mega projects appear increasingly often in policymaking, but they are not functioning as well as predicted: a lot of these mega projects suffer from severe cost overruns, and they affect the ecological environment more than predicted. Predictions for such projects are always inaccurate because of its long time-span of decision-making and use. But does this mean we should not plan such big infrastructure projects at all? What is the real reason for building these infrastructure links?

In decision-making these days, a lot of emphasis lies on various planning tools: we use cost-benefit analyses to calculate whether or not the project is economically and financially acceptable. We use multi-criteria analyses to show why we choose for such a project. Environmental Impact Assessments are used to predict the impact of the project on the ecological environment. We see that heavy weight is placed both on the economic value and ecological value. This is done to ensure *sustainable* projects, which can be used for a long time and do not have a negative effect on the ecological environment. To achieve this sustainability, one has to take into account the *Triple Base Line*. The Triple Base Line consists of the economical and ecological elements as mentioned above. It

does, however, also consist of a social element. This thesis wants to emphasize the social reasons behind infrastructure, since there is less discussion about the social value of infrastructure at the moment. The strong economical focus might be the result of liberal conceptions (Gunder, 2006, p. 218), whereas the ecological value may partly be a result of current climate changes that affect our world. To conclude, there is a need for more and clear incorporation of social justice with the fields of geography, as Smith points out (Smith, 2001, p. 266), and planning.

Finally, collaborative planning relies on social networks. Emphasis is being put on these *open planning processes*, where all stakeholders have a say in the decision-making as well. The use of collaborative planning might have effects on the informal powers in the decision-making process. Researching informal power relations on an individual level (between persons) is very challenging, since people will not speak freely about it. Also, these personal informal power relations may be less of an issue within big infrastructure projects. This thesis will therefore look more at the informal power relations on the *stakeholder* level. Stakeholders are groups of people that have a similar interest regarding the project. There has not been a lot of research on these informal power relations, partly because of their vagueness. The link between planning practices and the effects of these informal power relations will be researched in this thesis.

Box 2: relevance of the thesis

- | |
|---|
| <p>Relevance:</p> <ul style="list-style-type: none">- Increasing amount of big infrastructure projects- Relatively little interest in the social base line- Impact of informal as well as formal power relations |
|---|

1.4.: **Duality**

In the theory chapter, we shall see that there is a lot of duality and polarity within theoretic thinking. This can make it theoretically difficult to do research: if there is uncertainty and discussion regarding the nature of, for instance, social justice, then how can we use these theories in practice? One has to make assumptions in order to do research and test a hypothesis. These assumptions lead back to philosophical discussions. We should mention that this thesis specifically does not want to judge a certain theory. We shall see several standpoints in theoretical thinking, and that leaves the question how we are going to use the theory for our research. Below, we shall outline an approach that has been used throughout this work.

1.4.1.: *Dionysian and Apollonian*

In 1872, the famous philosopher Nietzsche wrote a book called *The Birth of Tragedy* (originally: *Die Geburt der Tragödie aus dem Geiste der Musik*). In this book, Nietzsche introduced the terms *Dionysian* and *Apollonian*. They refer to the two Greek gods with the same names. For the Greeks, Apollo was the god of light, rationality, and truth. Dionysus, on the other hand, was the god of wine, emotion and ecstasy. This is illustrated well in the play called *the Bacchae* by an ancient Greek writer called Euripides. The two gods mentioned above have opposing characters. It is this polarity that attracted

Nietzsche to use this as a metaphor for his book. He argued that an ancient Greek play, like the *Bacchae*, showed the struggle between these two elements within humanity. If there is an increase in Apollonian power in the play, then the power of the Dionysian side will shrink. The two, however, still go hand-in-hand: a balance should be found between them. This is illustrated well in two lines from the *Bacchae*, of which the ancient Greek lines have been added to the opening page of this thesis. Freely translated, the lines say something like:

“Old man, you do not renounce Apollo,
and yet you are wise to honour Dionysus, a great god”

1.4.2.: *Towards a pragmatic approach*

From the ideas of Nietzsche, one can make a link with the *psychoanalysis* of Freud: the *Es*, responsible for our unconscious desires, battles with our *Über-Ich*, our conscience. In this case, the *Ich* is responsible for making a decision between these two elements. We could say that the *Ich* is the writer of the play, choosing when to allow the Dionysian elements, or when to stay Apollonian. We find the same similarity between the *thesis* and *antithesis*. In this case the thesis could be seen as the Apollonian or rational *Über-Ich*, whereas the antithesis is the opposite: the irrational, the ecstatic Dionysian. The *Ich* or writer of the play is what Hegel calls the *synthesis*.

We can find this polarity in many theories as well as in practice. These concepts have been used for this master thesis. A relevant example is the progressions within planning theory. As we shall see in the theory chapter, there is a duality within planning between a rational, technical approach and a communicative, participative approach. There has been a change from a rational minded style to a more communicative style of planning during the twentieth century. Lately it has been recognised however, that both types of planning should be used, but in different circumstances. In this case, the planner faces the decision of the writer of the play. He is the *Ich*, the mediator between the rational and the communicative rationality. Based on this, no normative judgements are required regarding the different theories. We shall recognize that there are different theories, and that each of these theories can be used in their own way for our research. This leads to a somewhat pragmatic use of the theory. The only downside to this is the problem of subjectivity. Would another researcher come to the same conclusions, if such a pragmatic method were to be used subjectively? The methodology chapter of the research in this thesis will address this question in more detail. The terms Dionysian and Apollonian will be used throughout this thesis. The Dionysian stands for emotion and subjectivity, whereas the Apollonian stands for truth, rationality and objectivity.

1.5.: **Structure**

In the *first chapter*, the thesis will address the different theoretical thoughts within the three main themes of this thesis. In the first theme, that of social justice, the different terms will be discussed and several main standpoints within social justice will be explained. Infrastructure planning is the second theme. Its subchapter will address three different elements: planning theory, planning tools and infrastructure characteristics. Thirdly, the theory of power relations will be explored. This will eventually lead to a proposition and a hypothesis that are based on the theoretical intertwining of the three elements.

The *second chapter* will form the bridge between the theory and the research: it will discuss the methodology and methods that have been used to do the research. The research is based on the proposition and hypothesis of the theory chapter. The decisions that have been made regarding the methodology and methods will be based on theoretical arguments, and should improve the validity and reliability of this thesis.

Chapter three will form the introduction of the case study, in which the Zuiderzeelijn project has been researched. A timeline will be given, which will show us the different phases in the project until now. Also, the different stakeholders will be pointed out. This chapter is mainly an objective or Apollonian chapter, which will discuss the formal power relations in the project.

In *chapter four*, the bridge will be made towards the informal power relations. The subjective visions of the stakeholders will be addressed. Part of this chapter is based on the information that resulted from interviewing key stakeholders of the Zuiderzeelijn project. This chapter will discuss especially the hypothesis: whether formal power relations affect the decision-making process. Whereas chapter three is Apollonian in nature, this fourth chapter is more subjective or Dionysian in nature.

Based on the previous two chapters, an analysis of the case study will be presented *in chapter five*. This will bring the formal and informal power relations together and will discuss specifically the impact that this has on social justice. This chapter will also discuss what the implications of the hypothesis are for the proposition. This chapter will bring both the Apollonian and Dionysian sides together.

Finally, the concluding chapter will provide the *conclusions* from both the theory and the research. Based on this, a proposal is made for future research. At the end of this thesis, several recommendations will be made for future planning practice.

2. : THEORY

The theory chapter is split up in the three main themes of this thesis. These are respectively the themes of social justice, infrastructure planning and power relations. These will be individually discussed, but the links between them will be made clear as well. The major goal of this theory chapter is to show the links between these themes, and intertwine them into a theoretical framework. This will lead to a hypothesis and a proposition on which the research will be based on the next chapters.

2.1. : Theory of social justice

This first chapter will discuss the theory of the topic of social justice. It will form the foundation for this thesis. Firstly, several important terms will be explained to prevent any misunderstandings further on. A lot of terms like *social justice* and *equity* are used to mention slightly different things. This can seem rather chaotic at first, but should be clearer after reading this subchapter. Secondly, three major theories within social justice will be explained briefly: *libertarianism*, *contractarianism*, and *communitarianism*. These standpoints have been chosen because of their diversity and actuality.

2.1.1. : Terminology

Terms such as *social injustice*, *inequality* or *inequity* seem to have similar meanings but are in fact slightly different. The different terms will have to be clarified first, to make sure that it is perfectly clear what is being said in the following chapters. The foundation for these terms is the word inequality: herein lies the root of the social problem that leads to the discussion of how to solve it. For instance, in early twentieth century women in European countries did not have the right to vote. And until the late twentieth century, during the apartheid, the black majority was not allowed to vote in South Africa. These are examples of inequalities. There are different solutions to address these inequalities: they form the theories of justice, and are *based on action* (changing of inequalities), whereas inequality is a *state of being* (the inequality itself).

Weighing inequalities is a subjective action, which leads to philosophical discussions about underlying ethics and moral values. As Harvey mentions, our subjective ideas of justice are based on social values and social relations (Harvey, 1996, p. 330). This means that social justice can be perceived differently by varying cultures. This, in turn, leads to difficulties in understanding what social justice actually is. Smith argues that the use of *rights* can provide a common answer to these ethical questions (Smith, 1994, p. 35). Some rights are universal, as has been acknowledged by the United Nations in the Universal Declaration of Human Rights in 1948. Following this declaration, every human being should be treated in an equal way. Commonly, these issues of social justice were linked with gender and race. It is therefore not remarkable that theories of social justice overlap with theories of feminism.

In his *Theory of Justice*, Rawls comes with two principles, which mention the importance of people's individual rights. His first principle claims that everyone should have the same rights to the same liberties (Rawls, 1999, p. 266). Liggett furthermore makes a common distinction between what she calls *rights* and *interests* (Liggett, 1997, p. 452). Rights are based on a minimum living requirement, whereas interests are one's wishes going up from these rights. If a constitution mentions that everyone has the right for a decent home, then that is considered a right. An individual, however, might want more than just

a decent home. This is considered an interest. Although others live in better houses, we cannot specifically speak of any social injustice. Rawls mentions this in his second principle: we should accept the existence of inequalities, but they should be arranged in such a way that the least favoured group benefits the most (Rawls, 1999, p. 266). Smith makes a similar distinction, between what he calls *inequality* and *difference* (Smith, 1994, p. 49).

Within theories of social justice, a distinction can be made between *process-orientated* theories and *outcome-orientated* theories. The outcome-orientated theories are based on what Smith calls distributive justice (Smith, 1999, p. 25). For instance, if some people do not have enough money to go to university, they might be given the financial resources by the government to reach their goal. Several authors, however, emphasize the importance of a good institutional foundation that would lead to social justice. These are the process-orientated theories. For instance, Young discusses the element of oppression and domination within institutions (Young, 1990, p. 15). She argues that outcomes of decisions made by groups that oppress other groups is essentially unjust. Based on several practical case studies, Krumholz also emphasizes the importance of giving priority to the process instead of just the goal itself (Krumholz, 1997, p. 360).

Social justice is always linked with different *groups* of people. If a minority is not treated in a just way, then the injustice lies within a different treatment compared to other groups. Among others, Litman makes a distinction between two major types of equity as shown below (Litman, 2006, p. 3):

1. Horizontal equity: in this case people of the same group are treated in the same manner. The basis of horizontal equity is that everyone should be treated equally. Rawls mentions this in his first principle of justice for instance. In the following chapters horizontal equity will be referred to as simply *social equity*.
2. Vertical equity: in this case people from different groups are treated in the same manner. As discussed above, Young claims that social justice should be based on avoiding oppression of one group over the other. Also, Rawls' second principle covers vertical equity: as noted above, differences should be handled in such a way that the least favoured group benefits the most (Rawls, 1999, p. 266). From now on vertical equity will be referred to as *social justice*.

Differences between groups can often contain a spatial element. Example: the poorest people can only afford the cheaper homes. If a minority has less chance on proper education, and therefore fewer possibilities for a decent job, they will be among the poorest groups. As a result, these people may tend to live together in areas where houses are of lower quality.

We now have a basic framework for the topic of social justice. We have also made clear what the different terms mean in this framework, to avoid any misunderstanding further on. The next step is to discuss several different theories concerning the action to take in order to achieve social justice and equity.

2.1.2.: *Libertarianism*

On one side of the spectrum of political theories about social justice we can find liberalism and especially libertarianism. The ideas of liberalism are based on the view that people should be free to do as they wish, as long as they do not harm others. This is called the *harm principle* (Barry, 1991, p. 23). The way in which this freedom is achieved

distinguishes liberalism from libertarianism: in a liberal state, the government still has several important tasks like controlling the market. Within libertarianism however, the liberty of the individual is sacred and the role of the state is very slim. The libertarian theorist Robert Nozick claims, for instance, that the taxation of earnings is “on par with forced labour” (Nozick, 1974, p. 169). While we can see liberalism in practice these days, there have been no examples of libertarian states in the past. It is therefore more of a utopian concept.

Nozick stresses the importance of freedom of individuals, and therefore questions the role of the state. With a strong state, one is subject to its strong central power. This is often referred to as *the tyranny of the state*. If there is a minimal state, then this power is spread out over the inhabitants of that state. The beginning of the preface of Nozick’s book *Anarchy, State, and Utopia* shows the foundation of this libertarian theory very clearly (Nozick, 1974, p. ix):

“Individuals have rights, and there are things no person or group may do to them (without violating their rights). So strong and far-reaching are these rights that they raise the question of what, if anything, the state and its officials may do.”

If there would be no government control at all, then this could lead to dangerous situations. This is where libertarian views differ with those of anarchism. Nozick claims that protective services are still a major task for the (minimal) state (Nozick, 1974, p. 52).

Linking back to social justice, Nozick forms what he calls *the entitlement theory*, which discusses the right to property. Property is referred to as *holdings*. As stated above, freedom is sacred, and therefore one’s property is as well. It is the task of the state to ensure that the one is justly entitled to their holding. The entitlement theory consists of three elements (Nozick, 1974, p. 151):

1. A person who acquires a holding in accordance with the principle of justice in acquisition is entitled to that holding.
2. A person who acquires a holding in accordance with the principle of justice in transfer, from someone else entitled to the holding, is entitled to the holding.
3. No one is entitled to a holding except by (repeated) applications of 1 and 2.

A complete principle of distributive justice would say simply that a distribution is just if everyone is entitled to the holdings they possess under the distribution.

This means that everyone is allowed to keep what is theirs, as long as they have acquired it in a just way. The principle of justice in acquisition relates to holdings that were *unheld* (Nozick, 1974, p. 150) before. This opens up a whole field of philosophy. Nozick offers a solution through Locke’s proviso: the acquisition is just as long as there is “enough and as good left in common for others” (Nozick, 1974, p. 175). As long as the giver and receiver of the holder agree with a transfer, then this is a just transfer, as mentioned in the second principle. Stealing would be an unjust transfer. There is however one last problem within this entitlement theory: what happens in a transfer or acquisition was unjust in the past? To solve this, Nozick comes up with a third principle, which is the principle of *rectification* (Nozick, 1974, p. 152). This could result in a form of distributive justice as a rectification of past unjustness. This is the only form of outcome-orientated justice in this theory.

Following the entitlement theory, it is unjust for a government to force taxes on people. There are differences between people, but it is unjust to force one to pay for another’s shortcomings. This does not mean that there will be no social distribution at all. For example: in a libertarian state, one could imagine the existence of social insurances next

to health insurances. One would pay a monthly fee to join, and the insurance would distribute the income to those members who are in need for it. The crucial difference is, that no one is forced to join such insurance, while in welfare states one is forced to do so through taxes. We can therefore state that the entitlement theory is a process-orientated theory, as it has no particular interest in a particular distributive outcome, being the distribution of inequalities among people and groups.

2.1.3.: *Contractarianism*

A different view on social justice is that of contractarianism. This theory is based on the need for a contract between people and an objective mediator to distribute a good. The basis for the contractarian theory is what John Rawls calls an *original position*. This is a starting point on which a theory of social justice is based. For example, imagine that a group of people is in heaven and will be reincarnated on planet earth shortly. Obviously, they all wish they would be born in a family that will open a lot of possibilities for the person in the future. However, not all of them will be born with the same possibilities. At this point, they might all agree on a contract, which maximizes the possibilities for the people who end up being the worst off.

Rawls discusses the nature of human beings that lead to the possibility and necessity for them to cooperate (Rawls, 1999, p. 109), and form the contract as stated above. He mentions two conditions for this (Rawls, 1999, p. 109-110): firstly, there are *objective circumstances*, which state that every human being has roughly the same capacities. There is however, a scarcity in natural resources. This results in conflict, which can be avoided by cooperation. Secondly, there are *subjective circumstances*: people have different priorities in life. There are, for instance, different religions and people have different hobbies. These different possibilities can be of various natures. One's financial situation is an obvious measure, as well as one's social class. A bridge can also be made with geography: some areas offer more employment. As we will see below, Rawls emphasizes that liberty is also part of the nature of justice. After having discussed the nature of justice, and the original position, we can now construct a contract. Rawls comes up with two principles of justice (Rawls, 1999, p. 266):

First Principle

Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all.

Second Principle

Social and economic inequalities are to be arranged so that they are both:

- a. To the greatest benefit of the least advantaged, consistent with the just savings principle, and
- b. Attached to offices and positions open to all under conditions of fair equality of opportunity.

Basically this means that everyone has the right to the same liberties and that inequalities should be distributed in such a way that the worst off benefit the most. The just savings principle, as mentioned in the second principle, means we should take future generations into account as well (Rawls, 1999, p. 251).

The government can be seen as the neutral mediator of the contract, and should therefore make sure that these principles are being implemented in practice. We see that this theory has an outcome-oriented element, but the focus is on the process: at the original position people agree with a contract, but it does not mention who gets what.

The inequalities should be arranged when decisions are to be made about the future. In his *two priority rules*, Rawls offers welfare distribution as a last resort. The main focus should be on people's liberties, followed by equal opportunities among people. In addressing the importance of one's freedom, this theory overlaps partly with that of liberalism. However, the following example will show the clear difference between the two theories: suppose a country lives on strong liberal beliefs with little governmental influence. Railway companies will then be in charge of building new infrastructure networks. As the companies' goal is to make profit, they will create new networks in those places where they think it's economically profitable. It then makes sense to connect only wealthy areas, which can reduce the possibilities of poorer areas, and will therefore enlarge the gap between rich and poor. The second principle of Rawls makes sure that new public infrastructure networks will benefit the worst off.

2.1.4.: *Communitarianism*

Communitarianism points out that groups or communities exist within current societies (Smith, 1999, p. 98-99), binding people with specific similarities. Communitarians do not see the world as purely pluralistic, in which people are disconnected from their society or community. Social networks form different communities to which people relate. Walzer is one of the leading communitarian theorists with his *Spheres of Justice*. He states that different goods should be seen in relation to each other in what he calls *complex equality* (Walzer, 1983, pp. 17-18). If there is a significant connection between two of these spheres, then one could speak of injustice. For instance, if there is a strong link between capital and education (when the financial price for education is high), then this could be seen as unjust. The spheres should be unchained, so that one has the same possibilities for education, whatever capital power one has. In this way, everyone can have similar possibilities to achieve their needs. We should avoid that a specific good may become a *dominant good* (Walzer, 1983, pp. 10-11), in which case the dominant good opens up unequal possibilities to other spheres. One can think of capital becoming a dominant good in capitalistic states: communities with capital power can become a dominating group, oppressing others in their needs. Walzer also mentions that these needs or interests varies between communities, and are thus subjective in nature.

There is a geographical side to this theory as well. We now look back at the example of the last paragraph: if a railway company builds public infrastructure to achieve high profit, then there is a connection between: a) geographical location, where the richer areas are connected by the company; and b) accessibility through public infrastructure. This should be avoided if we follow the principle of complex equality.

Iris Young is also a theorist who bases her ideas on the difference between groups. These groups are "an expression of social relations" (Young, 1992, p. 43), bringing together people with similar cultures and religions. She stresses the importance of the relations between these groups. In this view, a contractarian vision of an impartial government is a utopia (Young, 1992, p. 114). Her theory is very process-oriented, similarly to the libertarian way of thinking: the goal of social justice should be to incorporate every relevant group in decision-making (Young, 1992, p. 173). Social justice, thus, is not mainly distributional, but lies especially in the process of how decisions were made.

There are two possible forms of injustice in this theory: *oppression* and *domination*. Domination refers mostly to the exclusion of groups from institutions and decision-making (Young, 1992, p. 38). For instance, when a minority has nothing to say about the

same policy that affects them. Oppression will be split up in what Young calls the *five faces of oppression*. They are all based on disturbed social connections between groups, which prevent others to develop socially. As mentioned, Young points out five different types of oppression, which are (Young, 1992, chapter 2, p. 39-65):

1. *Exploitation*: this can be seen as the biggest form of oppression, where one group has so much more possibilities than another, that they control this position. One can think of the power men had over women in decision-making over the years, deciding on the fate of women who were not allowed to vote themselves.
2. *Marginalization*: marginalization refers to the little possibilities a group has because of its image. For instance, an employer might prefer to have workers from a majority, in which case minorities have less chance to get a job.
3. *Powerlessness*: this form of oppression refers to the inability to decide on one's own actions. It refers to the same issue of oppression between workers and employers. Workers may have little or nothing to say about their role at work. Especially since they rely on their employers.
4. *Cultural imperialism*: refers to groups who think their culture is superior to another group's culture. A current example of this is the oppression by western culture of Muslims, triggered by the attacks on the Twin Towers.
5. *Violence*: the humiliation of members of a group through violence can be seen in for instance the racial history in the United States. It can however also refer to women who are subject of violence at home.

These different types of oppression should therefore be avoided in order to achieve social justice. These are communitarianist views in the sense that Young emphasizes the relationship between groups. She does not however, address the issue of the distribution of goods as Waltzer does with his theory of spheres.

2.1.5.: *Concluding remarks on social justice*

In this chapter we have seen three different views on social justice: libertarianism, contractarianism, and communitarianism. This thesis does not aim to value these theories. The theories will form a basis for the coming chapters about infrastructure and power relations. The case study will link back to these views, to discuss their contribution to the results of the research. This goes in line with the pragmatic approach that was explained in the introduction. Each of the theories will prove its worth in different situations.

2.2.: **Theory of infrastructure planning**

In the next subchapter, the topic of infrastructure planning will be addressed. A distinction is made between *planning theories*, *planning tools* and *infrastructure characteristics*, including public-private partnerships (PPP). A geographical side to the theories of social justice, as mentioned in the previous subchapter, will be made clear as well. Finally, we should mention that this subchapter focuses mainly on public infrastructure.

2.2.1 .: *Planning theories: rational planning*

We shall first discuss the different theories within (infrastructure) planning. Some writers extensively discuss whether or not planning is needed in the first place (Parkin et al., 1999, chapter two). We shall assume that, based on the last subchapter, some form of spatial planning may be needed for a contractarian or communitarian approach. In a libertarian view, planning is not really a government's concern. In this case however, the private sector may have to take over this task.

Spatial planning started with what is called the *rational planning approach*. This theory is based on the idea that the world around us is comprehensible, and that we can use our objective science and logic to solve spatial problems (Allmendinger, 2002 p. 42). In Western Europe, this type of planning was especially successful in the first decades after the Second World War. In some countries, the destruction that was left by the war called for quick solutions: houses and roads needed to be rebuilt quickly. Based on the available information, planners used their logic to decide on the future situation that was to be preferred (De Roo, 2004, p. 51). Planning was thus done in a *top-down* fashion: that is, a central government would steer lower governments and tell them what the master plan wanted them to do. In order to achieve this, planners needed a lot of data to research the entire *system*. The spatial environment was seen as a complex whole. Models were created to clarify the large amount of data that was available (Allmendinger, 2002, p. 45). This was made easier by the introduction of computers around that time.

Eventually this resulted in a situation, where planners thought themselves to be the experts in spatial planning. As experts, planners were supposed to be the only ones with the experience and knowledge to decide on spatial issues. This led to a lot of criticism in the second half of the twentieth century. There are three major points of criticism: first of all, one can discuss whether objective science can actually exist in spatial planning. Can a planner really be an objective researcher or decision-maker? In a rational planning system, planners decide what the *public interest* is. Secondly, a rational planning approach requires all the available information about the system. It is sheer impossible to acquire every possible data available. If one does not have the available information, then one can question the scientific value of planners (Allmendinger, 2002, p. 24). The third point of criticism arises due to the changing nature of the spatial environment: pluralist societies are becoming increasingly complex, due to the amount of different cultures within a society. The amount of groups with a specific interest in spatial planning has grown. It has become impossible to speak of one single public interest. This complexity increases the problem that was defined in the previous point of criticism.

When integrating the theories of social justice, one can see that this type of planning might suit best with a contractarian view on social justice: a strong government distributes infrastructure in order to make sure the situation of the worst of is increased. The government is the objective mediator, talking on behalf of the public interest. A libertarian would strongly disagree with any governmental influence. Finally, communitarian theorists would raise the problem of the complexity in the current pluralist world. If a central government decides on spatial planning issues, then one has had little influence in the decision process. Following Young's ideas, this could be seen as a form of domination, and could also lead to forms of oppression.

2.2.2 .: *Planning theories: collaborative planning*

Recently, there has been a shift towards more communicative forms of planning, also known as the *communicative turn*. This theory goes into the changes towards a more pluralist society: the amount of different interests within decision-making has grown, and therefore planning needs a new approach. Patsy Healy, who advocates this type of planning, argues that knowledge is socially constructed (Healey, 2006, p. 29). This contrasts with the rational planning idea that knowledge is objective, and can be achieved through science. She argues that:

“Public policy, and hence planning, are thus social processes through which ways of thinking, ways of valuing and ways of acting are actively constructed by participants.” (Healey, 2006, p. 29)

This means that the people who have an interest in a particular spatial planning decision, will have to construct solutions through discussing their wishes and possibilities for consensus. Not only does this method make sure that everyone’s interest is being addressed, it also creates willpower by the people involved. Woltjer mentions three planning activities based on this (Woltjer, 2004, p. 37): the first is *negotiating*, where the parties involved try to form solution to the mixed interests. The second is *learning*. In a rational planning approach, a few planners would form a solution based on their objective findings. However, the people that have a stake in the decision (for instance: companies, inhabitants, local government) have much more knowledge together. Learning from other people’s ideas might lead to new and creative solutions. The third and often used activity is *persuasion*: the planners inform the parties of their decision, and try to create willpower amongst them. The public participation in decision-making leads to a form of more direct democracy.

The collaborative planning theory bears strong resemblances with the communitarian ideas of Young: they both stress the plurality of the current society, and they both argue that all the stakeholders should be involved in the planning process. Robert Garcia and Thomas A. Rubin point out that people with a low income are often overlooked in public participation in planning (Garcia, 2004, p. 250). This may result in forms of oppression and domination. Also, by making use of Rawls’ just savings principle, one adds the interests of future generations to the process. Libertarians may also agree with some of the collaborative planning ideas: due to the decentralization of power, decisions are made through collaboration between individual parties. The government therefore has less of a decision-making role, although they will make sure that the process is done correctly. This theory may also go well together with contractarian views on social justice, if a final decision is still made by the government: truth is constructed together, but the mediator makes the final decision.

2.2.3 .: *Planning theories: concluding remarks*

Despite the criticism on rational planning approaches, these approaches can still be used effectively. De Roo argues that planners have to use different planning approaches in different situations (De Roo, 2003, chapter 4.9). Referring to the amount of stakeholders with a different interest, he makes a distinction between *simple* and *complex* spatial issues. Complex problems have a greater amount of conflicting interests. As mentioned before, rational approaches do not fit well with a complex pluralist world. However, for simple issues this method can still be effective. For more complex problems, however, collaborative approaches may work better.

2.2.4 .: *Planning tools: forecasting*

We shall now move on and discuss the different tools within infrastructure planning. In decision-making, planners can use various tools. Two of these tools will be discussed in the following paragraphs, because of their relevance with social justice. Only those elements that are interesting for this thesis will be highlighted shortly.

Because of the size of infrastructure projects, it takes a long time to finalize such a project. The decision-making process takes longer because of the impacts that such a project can have on the ecological environment and economy. This means that planners will have to base their decisions on possible situations in the future: what will the need for infrastructure be in one or two year's time? Planners therefore need to make predictions about the future. This is called *forecasting*, and there are several techniques for this (Ike, 2004, p. 157). These methods can be split in *quantitative methods* and *qualitative methods*. Quantitative forecasting is done based on historic data, and can only be done in a stable field of study. With the help of computer programs, predictions can be made. Even though one is working with raw numbers, using different sorts of models to do quantitative forecasting means that these predictions are in fact still subjective. If there is no quantitative data, or the field of study is unstable, then planners can do qualitative forecasts. Qualitative forecasting is based on people's expertise. Scenario planning is an example where possible future situations are explored by the forecasters. These predictions are therefore rather subjective.

Within infrastructure planning one has to forecast well ahead into the future, since it takes a long time to finish an infrastructure project. This means that the predictions will be uncertain and subjective, even though quantitative forecasting can make them seem to be very accurate. This uncertainty and subjective side to forecasting can be used to make forecasts that benefit a policy plan (Hanley, 2001, p. 120). This could mislead groups of people, creating willpower amongst them while the origin of the policy stays hidden. In this way, groups can become powerless regarding their own choices.

2.2.5 .: *Planning tools: evaluation*

Based on data and (inaccurate) forecasts, different alternatives will be evaluated to judge their effectiveness. It is used to create structure within the chaotic amount of data, and make this structure clear to the public (Niekerk, 2000, p. 6). One commonly used method is the *cost-benefit analysis* (CBA for short). This is an evaluation method that summarizes the costs and benefits of the different alternatives for a possible infrastructure project (Hellendoorn, 2002, p. 22). Costs can include the cost of building the project as well as the costs to maintain it or ecological costs. Benefits can include the benefit of less travel time or the increased safety for traffic. To make best use of this method, one needs to value as much costs and benefits in monetary terms as possible. When this is done, the alternatives can be compared with the 0-alternative or status quo. The problem of evaluation lies in the ability to address any direct and indirect cost or benefit. As was mentioned above, predicting the future is a sensitive and subjective job. Finally, not all costs and benefits can be easily addressed in monetary terms.

It may be clear that there is a reasonable subjective side to evaluation. The outcomes of a cost benefit analysis can change considerably with minor changes to forecasted data: evaluations are based on forecasts, which are subjective in nature. This does not mean that evaluations and forecasts are useless. Quite the contrary. However, it is important to

mention that evaluations by different researchers can and do result in different outcomes (Flyvbjerg, 2003, p. 7).

2.2.6 : *Infrastructure characteristics: the nature of infrastructure*

The last paragraphs discussed the general field of planning. We will now have a look at the characteristics of big infrastructure projects. First of all, it is interesting to mention the nature of infrastructure: built by the government, infrastructure projects can be seen as a *merit good* (Lucas, K., 2004, p. 10). Such a good has two characteristics (Eijgelshoven et al, 2004, p. 142; Shechter, 2001, p. 72). First of all, *no one is excluded* from the good: everyone is allowed access without having to pay. Secondly, there is *no rivalry*: if person A uses the good, then no one else is harmed because of it. When looking at motorways for instance, the availability of it seems to be a merit good. However, in these days traffic jams suggest that there is in fact a form of rivalry: if person A makes use of the motorway, then other people are negatively effected by him doing so. Additionally, pollution of car traffic harms people who leave near motorways. It appears that even railways can suffer from rivalry. In the Netherlands, the train connection between Olst and Zwolle is so crowded at peak hours that people sometimes cannot enter the train at all (NRC, March 21st, 2007). Mobility can become a scarce good.

This calls for action. There are several options. One option is to increase the amount of roads or railroad capacity. In this way the amount of rivalry is reduced. However, this might not always be the best solution due to *free-riding* behaviour. If there is a traffic jam, then some people will decide to travel via another route or at another time. If the capacity of the road is increased, than this will also lead to an increased use of it. Another option would be to tax the infrastructure in some way³ (for instance: only at busy hours). And this brings us back to the topic of social justice. Not all groups might be able to pay the tax when going to work by car, in which case infrastructure might become an exclusive good. The social injustice is of different nature than the geographical form of social injustice. It affects everyone using the road, but separates those who can afford it from those who cannot. The geographical form of injustice would separate people who live in different areas, with different transportation possibilities. If only certain motorways are affected by a tax, then this contains a geographical side (where you live and work) as well as a social side (how much you can afford for transportation).

There are several final remarks left regarding the relation between public transport and other modalities. Traditionally, scientists argued that public transport and the car do not compete directly: people who own a car travel less with public transport. The availability of public transport does, however, not compete with car ownership. Indirectly, however, planning policy can have an effect on car ownership (Goodwin, 1993, pp. 30-31). Public infrastructure should not specifically be seen as a competitor for the car: as Karen Lucas points out, not everyone has the financial capabilities to own and use a car, especially with the current gas prices. People who do not own a car therefore rely on public transport. Also, due to the changing environment, the distance towards services has grown (Lucas, 2004, p. 10). For these people, the reliance on infrastructure thus grows. Finally, there are environmental advantages of using public infrastructure over car use. Additionally, railways compete very well with airplane transportation. Examples of this

³ Remarkably, even the Dutch Railways is considering asking higher ticket prices during busy hours if the same is done on motorways (NRC, April 5th, 2007). The minister of Transport, Public Works and Watermanagement is not in favor of this, but it is a logical result of the liberalization of the railway companies.

are the *Train à Grande Vitesse* (or TGV for short) between Paris and Lyon, and the *Chunnel* that links London with Brussels and Paris (Button, 1997, p 163).

2.2.7 : *Infrastructure characteristics: public-private partnerships*

With infrastructure projects we often see *public-private partnerships* (PPP): the private sector builds and operates a project before handing it over to the government (Parkin, 1999, p. 193). One advantage of this is the use of expertise from private organizations. Also, private companies are often willing to co-finance the project. However, these private companies still want to make some sort of a profit to be interested in such a project. Giving more power to the private sector can make it difficult for the government to realize infrastructure projects that are socially needed. In the case of privatization, railway companies can stop using railway links that are not profitable. In this case the government might have to take care of these socially needed links. This shows the relation between the involvement of the private sector and social justice.

2.2.8 : *Infrastructure characteristics: mega infrastructure projects*

As Bent Flyvbjerg points out, we see an increase in the amount of mega infrastructure projects (Flyvbjerg, 2003, p. 3). These are projects that can be transnational in nature, and cost a lot of money. Therefore these projects are politically sensitive. And while a lot of new such projects are proposed, past mega infrastructure projects appear less effective and more expensive than was predicted. In the paragraphs about forecasting and evaluation, the risks of these predictions were already mentioned. Flyvbjerg also mentions that these mega projects are often covered with political power relations (Flyvbjerg, 2003, p. 7), which is the topic of the next subchapter. He argues that a collaborative planning approach is to be preferred for mega infrastructure projects, making sure that all of the important stakeholders are included. This will create willpower amongst the stakeholders and offer more transparency.

2.2.9 : *Concluding remarks on infrastructure planning*

We have now discussed all the relevant aspects of infrastructure planning for this thesis. One can argue that the nature of planning is such that it has more connections with process-orientated elements of social justice than with outcome-orientated elements: planning policy aims to make changes to a current situation through outputs (the plans) and outcomes (the implementation of plans). These plans are based on geographic information. In this way, geography has more to do with outcome-oriented or distributive justice. This thesis focuses more on planning, and will therefore mainly address the procedural side to social justice. Also, we can see a clear duality within infrastructure planning: on the one hand we have the Apollonian or rational planning, and on the other hand we have the Dionysian or collaborative style to planning. These types of planning each have their own benefits, and should be used at relevant situations. This again shows the opportunities for a pragmatic approach as was discussed in the introduction.

2.3 .: **Theory of power**

Within planning there are always different stakeholders involved with an infrastructure project. These different stakeholders will always try to achieve their own goals within the project. We have previously discussed the theory of Young, who mentions that different forms of oppression or domination could occur between these different groups. This chapter will go into this topic of power, which is the third and last theme of this thesis. The opposing theories of Foucault and Habermas regarding power will be discussed first. Because of the philosophical weight of the opposing theories, only the relevant elements for this thesis will be mentioned. By using the pragmatic approach, these theories will be combined in some concluding remarks regarding the theory. In these concluding remarks, the term power will be explained in more detail. The difference between informal power and formal power will be pointed out as well. In the next subchapter, a distinction will be made between several important stakeholders in Dutch infrastructure planning. This will intertwine the three different themes in a proposition that shows us their interrelation.

2.3.1 .: *Michel Foucault*

Within philosophies about power, there are mainly two opposing theorists: Michel Foucault and Jürgen Habermas. These two standpoints will be briefly discussed below, and will give insight on the nature of power.

Foucault argues that power is not an objective thing one can have or see. He argues that power is ever present and that it flows freely from one person to the other (Foucault, 1976, p. 36). We should not see power as “the domination of the King in his central position”, but as “the multiple forms of subjugation that have a place and function within the social organism” (Foucault, 1976, p. 34). Thus, power is something that is a result from social relations. Furthermore, Foucault talks of a triangle that consists of three elements (Foucault, 1976, p. 31): *power*, *truth* and *right*. Truth, in his eyes, is something that is a result from social interactions. He calls this the *discourse of truth*, since the social organism constructs this truth. A good example of this is the existence of fashion in clothing. The truth about what is perceived as nice clothing changes due to the way people talk about fashion. In this sense, clothing fashion can be seen as a truth discourse. Looking back to Foucault’s theory, there is a strong relation between power and truth, which is double sided: power is created through the discourse of truth, but power also creates these discourses of truth. However, because of the non-existing truth and the ever-existing power in social relations, Foucault thinks it is impossible to prescribe how one can get rid of the influential power relations. In his eyes, one has to struggle against these powers to make them clear: the fight against domination (Flyvbjerg, 1998, p.224). Also, one should have the freedom to engage in conflict against these forces of power. One should therefore be free to participate in protests. And it is through these protests that power relations are revealed. Apart from this option to protest against power, Foucault did not create a methodology to instruct how to work with power (Simon, 1994, p. 954). We can see that this Apollonian or aggressive of using power, at first sight, does not fit well with current collaborative planning styles: collaborative planning wishes to create some sort of consensus through working together.

2.3.2.: *Jürgen Habermas*

Habermas shared some views with Foucault. He also emphasizes that reality is based on social interactions (Flyvbjerg, 1998, p. 212). While Foucault calls for conflict, Habermas' goal is consensus through what is called a theory of *communicative rationality* or *communicative action* (Kelly, 1994, p. 1). In Foucault's theory, power is ever existent. Habermas, however, argues that power can be tempered when making use of his five points of *discourse ethics*, which are (Habermas, 1993, p. 31):

1. No party affected by what is being discussed should be excluded from the discourse (the requirement of generality)
2. All participants should have equal possibility to present and criticize validity claims in the process of discourse (autonomy)
3. Participants must be willing and able to empathize with each other's validity claims (ideal role taking)
4. Existing power differences between participants must be neutralized such that these differences have no effect on the creation of consensus (power neutrality)
5. Participants must openly explain their goals and intentions and in this connection desist from strategic action (transparency)

By creating his theory of discourse ethics, Habermas comes up with a top-down process or methodology to mitigate illegitimate power use. Therefore, he makes a distinction between illegitimate and legitimate power use (Kelly, 1994, p. 1). We now look back at the triangle of power, truth and right as discussed in the previous paragraph. Habermas claims that legitimate use of power lies in constitution (Flyvbjerg, 1998, p. 214), based on for instance human rights, which are in turn based on a *universal truth*. For planning these points of discourse ethics match well with types of collaborative planning, where mutual learning through communication would lead to decision-making.

2.3.3.: *Concluding remarks on power theory*

There are several interesting elements of these two theories that can be used for this thesis. First of all, however, we should somehow formulate what power actually is, and what the distinction is between informal power and formal power. Habermas makes a distinction between legitimate and illegitimate power use. For this thesis, we can say that *illegitimate power* use is that use of power that has negative effects on social justice, based on its theories. In this way, a universal explanation of the word power is not specifically needed. However, a distinction still has to be made between formal and informal power relations. Using the ideas of Young, we could state that *formal power relations* are those relations that show a formal dependence, via law or policy, of one group on the other. *Informal power relations* are those relations that show that one group is dependent on the other without any formal reason. With this dependency, we mean that a group has no full control over the achievement of their own goals.

Combining the two theories, we can see that: collaboration may diminish the influence of informal power relations, because all stakeholders are involved with the interaction. This may show the importance of collaborative planning styles. However, if informal powers do have an effect, then one could make use of the aggressive technique of protesting. This would uncover the informal powers, and could make sure that there is an optimal collaboration between the stakeholders.

2.4 .: **Proposition**

The next section contains a proposition that is based on the three themes of this thesis. This proposition will point out the relationship between the themes of social justice, infrastructure planning and power use. These relationships are all based on the theories that were discussed in this chapter. To start, we can make a distinction between several stakeholders in Dutch infrastructure planning. This distinction will be used in the proposition of the next subchapter and the research of the following chapters:

1. *The national government*: the national government, consisting of the ministries, is the final responsible stakeholder in the decision-making process.
2. *Within the government itself*: regional governments, consisting of provinces and municipalities, often have colliding interests with other governmental agencies regarding new infrastructure projects. Also, there is a relation between the cabinet and the lower house.
3. *The private sector*: private companies construct the infrastructure work, and may be owner the line before handing over to the government. Their goal is mainly to make profit.
4. *The researchers*: the researchers deliver the data on which the final political decision is made. Their goal is to distillate the information that is as objective as possible
5. *The sentiment*: finally, and in line with Foucault's discourse of truth, the way we look at the world is formed by a *Zeitgeist* or sentiment of that time. This forms an additional and invisible stakeholder in the project.

In the following paragraphs, the different powers between the stakeholders within Dutch infrastructure planning will be explored, and the link with social justice is made clear as well. All the stakeholders will be compared with the national government, since the national government is the final responsible stakeholder in the decision-making process. Within each paragraph, the formal power, informal power, and implications for social justice will be discussed respectively.

2.4.1 .: *Power between the national government and the private sector*

The relation between the government and the private sector depends largely on the type of state. In a libertarian state, the government would purely function as a *night watchman*, intervening only when strictly necessary. In most western countries, however, the government has an important role in planning: either through politics in a political state like in Belgium, or through laws and regulations in a more bureaucratic state like in the Netherlands. More practically, one can think of public private partnerships between the government and the private sector. In this case, the original starter of the project could be either the government or the private sector. Informal power could strengthen any of the formal power relations mentioned above. One can think of lobbying between individuals from companies and the government. Forms of corruption could occur, as mentioned by Parkin and Sharma (Parkin, 1999, p. 200). We can also argue that the informal power of the private sector is stronger in relatively poor countries, since the government will have fewer financial capabilities to start these projects.

Assuming that private companies have profit as a main goal, and if the government relies on private initiative, then this can lead to social injustice: using Walzer's theory, the sphere of geographic location could have influence on the sphere of possibility for transport. Also, if there is a cartel amongst contractors, then there could be oppression

or domination by contractors over the government. For instance, if the government wishes to build a motorway then the price they will have to pay is not based on the free market. Instead, the contractors have the power to determine the price that the government will have to pay. In this case we could speak of a form of oppression as mentioned by Young.

These forms of injustice can be tackled through the use of the theories of Habermas and Foucault. Habermas would argue, that all the stakeholders should be involved, that everyone gets an equal voice so that informal power relations are nullified. Following Foucauldian theory, one would have to protest against these informal powers to reveal them.

2.4.2.: *Power between the national government and researchers*

Decision-making should always be based on the best data available. In rational planning approaches, the emphasis on data-collection is especially strong. This data comes from researchers: consultancy companies, universities and other impartial researchers. With big infrastructure projects, analyses such as the cost-benefit analysis (CBA) are costly. This means that they are often done on request in the decision-making process. When done on request, there is a relation between the government and the researchers: money is paid, research is done. Additionally, existing data can be used as well. These relations could become obscure. First of all, decision-makers could choose from a pile of existing data and use the research that suits the decision from the government best: interpreting data is subjective, so decision-making can be based on incorrect use of data. One could also think of informal power relations between the government and paid researchers. Consultancy companies could tend to interpret data in favour of the government, hoping to get another order from the government in the future. The same could be the case if the researchers are based internally within the government. In fear of losing their job, they will try to please their boss with favourable results.

These formal powers can lead to social injustice: cost-benefit analyses (CBA) evaluate benefits against costs, mainly in monetary terms. It takes in account extra employment but does not go into the distributional value (Comissie Duivesteijn, 2004, p. 33; Hanley, 2001, p. 109). If we look at Rawls' theory, then the worst off should benefit the most, which might not be the case if only monetary terms are used: following Walzer, one would argue that the sphere of geographical location would have an impact on the sphere of mobility. Social injustice can also be caused by informal power within these relations. For instance, researchers could be oppressed when fearing for their job if they do not comply with informal wishes. In this case, the researchers might not have full control over their own actions: either they can comply with the wishes and keep the job, or produce (more) objective outcomes and lose the job.

Solving these forms of negative powers can be difficult. In any case, making sure the research is open to external inspection (Hanley, 2001, p. 120) will diminish these problems. When data is brought forward, then other researchers could seek conflict (following Foucault) and produce their own (objective) results. This could also be seen as using Habermas' view to give every stakeholder a say. Still, interpreting cost-benefit analyses requires specific expertise, which makes the transparency more difficult. Collaboration between the different researches could lead to a consensus regarding the decisions made for the research.

2.4.3 : *Power between the government itself*

First of all, the politicians, once they have their vote, work together in name of the people. There are several possible state forms, but we'll use an indirect democracy as example here. In this case, there is a relationship between the cabinet and the lower house: the latter checks if the cabinet is doing its job well. These relations can be formal, through open discussion, but can also rely on informal chats and lobbying over coffee. This does not necessarily have to be a problem, since the relations are based on formal rules. The relation can, however, play a significant role in putting topics on the public agenda (or omitting it). The cabinet can, however, hide important data from the lower house. If the cabinet were hiding information, then the functioning government would take decisions based on the wrong data. We could see this as a form of oppression, where in fact the cabinet is bypassing the lower house and therefore the vote of the people. The lower house often has the power to conflict (Foucault) with a minister, aiming that the minister will have to resign from its job. Openness and transparency (Habermas) is crucial here.

Secondly, there may be a relation between the national government and the regional governments. This relation depends heavily on the planning practice of the particular country. In the Netherlands, regional governments have a heavy influence. However, big infrastructure projects are trans-regional in nature, and therefore cross different regional governments who have different stakes in the process. Also, these projects are often paid nationally, and therefore the regional governments rely on the national government financially. If the national government prefers to invest in infrastructure projects in a few specific regions, then this could lead to social injustice.

2.4.4 : *Power of the Zeitgeist or sentiment through communicative rationality*

First of all, in most democracies, the politicians and the underlying governments rely on their vote from the people. The justification of decision-making by the government thus relies on the people. In this, the media form a gateway in the communication between the people and the government. They will address concerns if they think that wrong decisions are being made. Also, the media inform the people what these decisions are. Secondly, the Zeitgeist or sentiment plays a strong role in this. Truth is constructed through the social interactions. This means that the truth concerning a project can vary between groups or geographic regions.

Regarding the media: the government could be in control of it⁴, which could influence the truth or view of the people. This is a form of informal power, which could involve censorship. However, power can also work the other way round: the media are in the position to shape a public opinion, forcing the government to take particular decisions. This matches Foucault's theory of discourses of truth. Let's make this clear with an example: in Groningen, the Netherlands, a referendum was held in 2001, which would aid decision-making regarding the renovation of the central market square. At that time, the sentiment was that the Martini Church would fall over if this renovation would actually take place. This assumption, however, was scientifically false. The local government did not renovate the market square in Groningen as a result, while the public opinion was based on false interpretations. By protesting against these false truths,

⁴ Silvio Berlusconi used to be the owner of media company Mediaset while he was prime minister of Italy.

one may uncover its errors. When in disagreement with decision-making and in a democracy, the people have considerable powers to protest against such decision.

There is one last remark to be made regarding the influence of the sentiment within democracies. If there are social inequalities between regions, then the majority of the people might not be in favour of a project that diminishes the gap between the rich and poor. In most cases, the poorer areas or groups form a minority. However, in a democracy a majority is needed for a decision. This creates a paradox, which might make it difficult for decision-makers to decide for projects that diminish social inequalities. To make a decision in favour of the project, the sentiment will have to be changed.

2.4.5 .: *Concluding the proposition*

We have now seen how the different theoretical themes intertwine in this thesis. However, the bridge between theory and practice should still be made. To research the proposition, one will first have to find out whether or not informal power relations actually affect the decision-making process of infrastructure projects. This hypothesis will be tested in the following chapters, which will present the research of this thesis.

3 .: METHODOLOGY AND METHODS

In the previous chapters, the theories of the three themes of this study (social justice, infrastructure planning, power relations) have been discussed. The intertwining of these three elements will result in a hypothesis. This hypothesis can then be tested through a research to see if the hypothesis holds its ground. This chapter will discuss the formation of the hypothesis, and will also explain the rationale behind the research that has been done to test it. This rationale is the methodology of the research: the chosen set of methods to effectively test the hypothesis.

3.1 .: Hypothesis

The goal of the theory chapters was to make clear that there is, theoretically, a relation between social justice, infrastructure planning and (informal) power relations. The relation can be explained in two steps:

1. (Informal) power relations affect the decision-making in large infrastructure projects: for instance, the lobbying of private infrastructure companies could influence the decision-making process.
2. This can have an effect on social inequalities as a result: for instance, these private infrastructure companies are out to make a profit, and are therefore mainly interested in financially interesting infrastructure links. This could mean that living in financially wealthy areas has an effect on the availability of infrastructure. Following Walzer, executing plans that emphasize the link between these two spheres can be seen as injustice. If the informal lobbying resulted in the exclusion of other private companies to join in the market, then this would be seen as injustice in the eyes of a libertarianist.

The second step is fairly subjective. As we have seen, there are several radically different standpoints within theories of social justice. The theory of this thesis has covered this step. The first step has, however, been hypothetical until now. And it is this step that will be used as a hypothesis for this research. Finally, the goal of this thesis is to gain insight in the role of informal power relations within infrastructure planning, hoping to come up with a set of recommendations that can help future projects to make just decisions. The hypothesis, propositions, and recommendations have been added to the box below.

Box 3: the hypothesis

Hypothesis:	<i>Informal power relations affect the decision-making process of big infrastructure projects.</i>
Proposition:	<i>Informal power relations affect social justice through inequalities within infrastructure.</i>
Recommendations:	<i>How can one avoid the negative effect of informal power relations within decision-making?</i>

3.2 .: **Methodology**

When doing research in non-social sciences, the methodology can be more straightforward than doing research in social sciences: for instance, testing the effect of temperature on the pressure within a football can be done through an experiment of the situation and the use of equipment to log the changes during the experiment. This produces quantitative data (an amount: temperature, pressure) regarding questions such as: what and when? Within social sciences, quantitative data cannot always be used as effectively. For instance, testing the social effects of the ratio between foreign and local people within a neighbourhood cannot as easily be measured. Within social sciences qualitative research is thus used instead, and answers questions such as: how and why? A qualitative research's goal is to gain insight in human behaviour. The problem with qualitative research, however, is the subjective side to the research (Marshall, 1999, p. 2): we are not measuring temperature, but interpreting behaviour. Traditional positivism criticizes the subjective influence of the researcher within the research: "Any influence by the person of the researcher should be eliminated or minimized" (Kvale, 1996, p. 61). On the other end of the spectrum, relativism argues that every observation is in fact subjective, also in quantitative research (Kvale, 1996, p. 66).

3.2.1 .: *Validity and Reliability*

The research has to overcome these problems of subjectivity to make it a credible research. There are two key aspects of credible research that are often used as guidelines: (Rubin, 1995, p. 85; Kvale, 1996, p. 253):

1. *Validity*: the research should be effectively studying the hypothesis. Or, as Rubin et al. explain: "If a research is valid, it closely reflects the world being described" (Rubin, 1995, p. 85).
2. *Reliability*: a research is reliable when different researchers will end up with the same results when doing the same research.

To achieve this, research needs to be (Rubin, 1995, p. 85):

1. *Transparent*: it should clear why the researcher came to his data and conclusions.
2. *Consistent*: the research should be consistent. If inconsistencies occur, they should be explained.
3. *Communicable*: the research should also be clear to those who have little knowledge of the subject at first.

3.2.2 .: *Case study*

To test the hypothesis of this thesis, qualitative research will have to be done. It is simply not possible to measure informal power relations like measuring temperature. And as Marshall points out, qualitative research works especially well with "research on informal and unstructured linkages and processes in organizations" (Marshall, 1999, p. 57). One will have to gain insight of a situation and explore the different human behaviours. For this thesis, a specific case has been chosen for the research. This is the *Zuiderzeelijn* project in the Netherlands. This project has been chosen because of its relevance regarding social justice (one of its goals was to create opportunities for weaker areas), infrastructure planning (this is a large railway infrastructure project), and power relations (there are a lot of active stakeholders involved).

The methodology of the case study will consist of several methods to test the hypothesis. First of all, historical data will be used to create an introduction to the case study: articles and policy documents will be used to create a timeline of the project. Also, a sketch will be made of the parties involved, and their goals will be defined. This will clarify the formal power situation of the project and could perhaps raise issues of informal power as well. Secondly, in-depth interviews will be held with key stakeholders to get a better understanding of their personal opinions on the project. Also, recent interviews from secondary sources will be used to back up the analysis, and increase the reliability of the research. Surveys will specifically not be used, because the method would be less effective in researching informal power relations. The box below shows the title of the case study and the methods used.

Box 4: the case study

Case study:	<i>The “Zuiderzeelijn” rail infrastructure project in the Netherlands: the influence of (informal) power relations.</i>
Methods:	<ol style="list-style-type: none"> 1. Existing data 2. Interviews with stakeholders

3.3 .: **Formal research: using current data**

Roughly, one can make a distinction between researching the formal powers and the informal powers in the case study. Although the two researches do overlap, these two will be discussed in this chapter individually. In this, the formal research relies on current information whereas the informal research will involve new research.

First of all, existing data will be used to create an introduction to the case study and explore the formal relations within the project: the different stakeholders will be pointed out, as well as their formal influence on the project. The formal powers also include the Habermasian collaboration and the Foucauldian protesting. The subjective and informal visions of the stakeholders are not part of the research at this point. There are a lot of relevant policy document since a large infrastructure project like the Zuiderzeelijn is planned on a national level, and the ministry has to make important decisions. Also, cost-benefit analyses can be studied to find out what choices are made by the researchers. Finally, newspaper articles can be reviewed to find out the use of the formal powers as described above. A previous research concerning the media and the Zuiderzeelijn will be used as well.

Box 5: current data

Current data:	<ol style="list-style-type: none"> 1. Policy documents 2. Cost-Benefit Analyses 3. Media (newspapers) 4. Previous research
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3.4 .: **Informal research: doing in-depth interviews**

There is not one standard in doing interviews. This subchapter will show what kind of interview could be done, and who could be interviewed. Based on the theoretical foundation, a list of interviewees will be made that is relevant for the case study.

3.4.1 .: *The structure of the interview*

The goal of doing the interviews with key stakeholders is to get more insight in the relations between the stakeholders. There are different types of interviews possible. Arksey et al. point out three different interview structures (Arksey, 1999, p. 7):

1. *Structured*: all the questions are fixed before the interview starts.
2. *Semi-structured*: some main questions are fixed, but there is more room for change.
3. *Unstructured*: only main themes are fixed beforehand, but no specific questions.

Each of these three structures offers specific advantages. For this thesis, however, a semi-structured is most appropriate: for instance, a structured interview would leave little opportunity for the stakeholder to speak freely. There are however key questions to be asked in these interviews, so a fully unstructured interview will not as effective either.

3.4.2 .: *Whom to interview?*

Within this research there are different stakeholders who have different opposing views concerning the project. The key stakeholders in this case study are: the ministry of transport, a private sector, and the researchers. However, when trying to reveal informal power relations, only the stakeholders that are directly involved with the decision-making process may provide useful information: a general worker at the ministry has less insight in these power relations than the main project leader, who is more influential in the decision-making process. Interviewing these key persons is what is called *elite interviewing* (Marshall, 1999, p. 113; Arksey, 1999, p. 122; Rubin, 1995, p. 113). This does oppose several issues: first of all, these people have a tight schedule. Secondly, they might be less willing to speak freely because of their status and responsibility. It will be important to build a trust between interviewer and interviewee.

The rationale behind this method is to create boundaries of possible opposing visions of these stakeholders. In line with Hegel, the synthesis lies somewhere between the thesis and antithesis (the boundaries). "Getting different points of view" (Rubin, 1995, p. 69) is what is also called *data triangulation* (Arksey, 1999, p. 23). By asking the different stakeholders the same questions, the interviewer will get to know the different opinions about a single topic (the relationship between stakeholders). This method would be effective for this research.

3.4.3 .: *Doing the interviews*

One can choose between doing a written interview, a telephone interview, or doing the interview face-to-face. For this research, the latter is most appropriate. As we have seen, a semi-structured interview is to be preferred. Written interviews, surveys and telephone interviews work better when asking specific questions (structured interviews). In this

case, the interviewee should be free to talk about his views and opinion (unstructured or semi-structured). Also, building trust works better with face-to-face interviews.

Finally, the interviews are recorded on a voice recorder where possible. This makes sure the research is more transparent, and therefore more reliable. The full text of the interview is not worked out, but several quotes will be given in the research of the next few chapters.

Box 6: the interview method

Structure:	<i>Semi-structured:</i> some specific questions, but there is room for improvisation as well.
Type:	<i>Face-to-face:</i> works best with semi-structured interviews.
Interviewees:	<ol style="list-style-type: none">1. The Ministry2. The private sector3. Researchers
Additionally:	Relevant <i>interviews from secondary sources</i> will be used to back up the findings of the in-depth interviews. Example: the interviews done by Berenschot (De Wal et al).

4 .: CASE STUDY: INTRODUCTION

This chapter will form an introduction to the case study and will function as a preparation for the research that has been done. First of all, a descriptive overview and timeline of the Zuiderzeelijn project in the Netherlands will be given in a formal manner. This should answer some trivial questions regarding the (changing) goals and contexts of the project. This timeline will, based on the different theory chapters, also be analyzed later on in chapters five and six. Following the proposition subchapter of the theory, a distinction will be made between the main stakeholders of the project. The formal relations between these stakeholders will be made clear as well. Within the timeline a distinction will be made between three phases: the birth of the project, an evaluation phase, and the *Structuurvisie* (meaning: structural vision) phase.

4.1 .: Timeline

Before we go on and discuss the project's timeline, it is fit to explain briefly what the *Zuiderzeelijn* (meaning: southern sea line) project is and where the name comes from: the *Zuiderzee* (meaning: southern sea) was an inlet of water in the Netherlands, that used to be in direct connection with the North Sea. In 1932, a major dike shut off the connection with the North Sea, changing the Zuiderzee into a lake, which was from then on called the *IJsselmeer* (Lake IJssel). During the twentieth century, land was reclaimed from what was originally called the *Zuiderzee*. This new poldered land formed an additional (twelfth) province of the Netherlands, which is called *Flevoland*.

In the Netherlands the main economical region is the *Randstad*, which consists of several major cities in the west. Two key economic centres are the harbour in Rotterdam and the *Schiphol Airport* near Amsterdam. The northern provinces of the Netherlands have seen less economic prosperity. The *Zuiderzeelijn* is the possible railway connection between Schiphol airport near Amsterdam (*Randstad*) and the northern city of Groningen. A direct connection, that partly follows the newly reclaimed land, would be used for the project. It is therefore, that this project is called the *Zuiderzeelijn*.

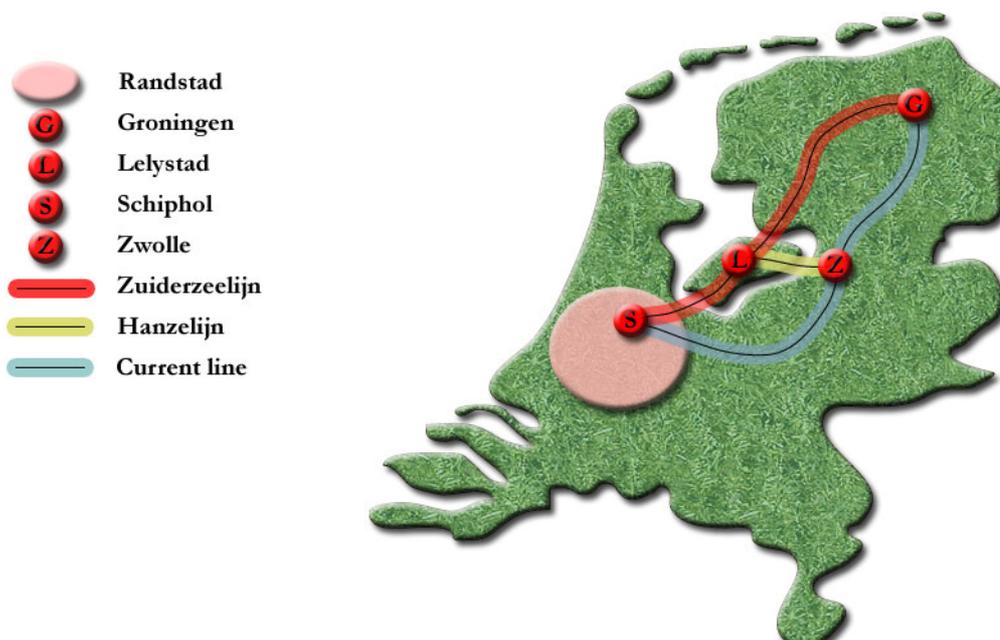


Figure 2: situation of the *Zuiderzeelijn* project

4.1.1.: *Stage 1: the birth of the project*

The Zuiderzeelijn project started as a regional plan: municipalities and other regional governmental agencies raised the idea of connecting the Randstad with the northern provinces in the sixties (Tijdelijke Commissie Infrastructuurprojecten, 2004, p. 8). These local initiatives led to the creation of the Zuiderzeelijn Foundation, which made some publications regarding the new possible project. In the eighties the government decided to build another railway link that was to connect the cities of Amsterdam and Zwolle directly via Lelystad. This railway link was called the *Hanzelijn* (see Figure 2). This would shorten the travel time from Amsterdam to Groningen, but not as significantly (Tijdelijke Commissie Infrastructuurprojecten, 2004, p. 8). As we will see later on in the case study, this Hanzelijn project would become a competitor with the Zuiderzeelijn project in the decision-making process. By 1988 the track was finished until Lelystad.

During the eighties, there were several driving forces behind infrastructural projects. First of all, there was a growing partnership between European countries, leading to the Maastricht Treaty in 1993. This European sentiment made room for international infrastructure projects: an example is the Chunnel railway link between France and the United Kingdom. Also in that time, the *Train à Grande Vitesse* (or TGV for short) railway link was constructed between Paris and Lyon. Following the Zuiderzeelijn Foundation, the Netherlands lagged behind regarding a decent national infrastructure (Stichting Zuiderzeelijn, 1988, p. 1). They stressed the importance of a good infrastructure, since the Netherlands has always been a strong international trading country. The harbour of Rotterdam and the airport of Schiphol are, as mentioned earlier, good examples of this. It should be mentioned, however, that the two European railway links mentioned above also compete with airplane transportation (Button, 1997, p. 163). This is not the case with the Zuiderzeelijn, and therefore these projects differ on this point. Thirdly, the foundation argues that the negative impacts of roadway congestion prospects call for investments in public railway infrastructure. Congestions on the motorways will become a serious problem since the Netherlands, and especially the Randstad, is densely populated. It can be debated, however, whether public transport will really directly compete with transportation by car (Goodwin, 1993, pp. 30-31). By this time, it is interesting to note that the Hanzelijn was built until Lelystad, but no further. The Zuiderzeelijn Foundation points out the curious situation where a railway line stops at a rather odd location (Stichting Zuiderzeelijn, 1988, p. 4). Also, the first reports on the Zuiderzeelijn conclude that there will not be enough passengers to make the project viable (Stichting Zuiderzeelijn, 1988, p. 5). The foundation, however, critiques the lack of a decent cost-benefit analysis (CBA) for socio-economic (indirect) effects.

In 1988 the Dutch Railways (*Nederlandse Spoorwegen*, or NS for short) published an own strategic plan for the long-term future, called *Rail 21*. At that point the Dutch Railways relied heavily on governmental support. In this document, the Dutch Railways also point out the importance of a decent public infrastructure network for the Dutch economy (NV Nederlandse Spoorwegen, 1988, p. 3). It is considered especially crucial for the mobility problems that are to be expected in the Randstad. They also address the need for a better railway connection to European high-speed rail networks. Interestingly they do also mention the strategic importance of the Zuiderzeelijn project, calling it a “crucial high-speed infrastructural project for the long term” (NV Nederlandse Spoorwegen, 1988, p. 35).

Since the first ideas for the Zuiderzeelijn project, the railway link was seen as a standard or high-speed railway connection between Schiphol Airport (Amsterdam) and Groningen. Regional governments, like the northern provinces and municipalities, especially favoured the project and were actively involved in putting it on the national agenda. During this time, there also was national governmental support for the northern provinces to attract industry. This was done since the northern provinces were economically lagging behind in the Netherlands. In 1992, these provinces (Drenthe, Groningen, Flevoland and Friesland) formed a partnership, which was called the “partnership for the construction of the Zuiderzeelijn railway” (Tijdelijke Commissie Infrastructuurprojecten, 2004, p. 8). Around that time, the European Union also favoured the liberalisation of railway companies. Eventually, the Dutch Railways was split up in two divisions: the government was responsible for the physical railways while the Dutch Railways was responsible for the transportation on these railways. This caused problems for their initial Rail 21 plans for the future.

4.1.2.: *National support for the Zuiderzeelijn*

The regional lobbying for the Zuiderzeelijn project continued. Another cooperation between northern provinces, which is called North Netherlands Assembly (*Samenwerkingsverband Noord-Nederland*, or *SNN* for short), supported the establishment of a committee (*Commissie Langman*) to advise on actions to be taken regarding the economic problems in the north of the Netherlands. In 1997 the report of the committee was finished, and called for extra investments in the northern provinces. The committee mentioned that the Zuiderzeelijn should be developed as a long-term project towards the year 2030. The cabinet, however, also asked the SNN Assembly for direct advice. The assembly is significantly more positive about the Zuiderzeelijn, and argues that it should be a short-term project, and that the construction should start before the year 2010 (Tijdelijke Commissie Infrastructuurprojecten, 2004, p. 10). The assembly also points out the possible international relevance of the project, as a link towards northern Germany. The cabinet agrees that the Zuiderzeelijn project should be put on the formal agenda, and hopes to start the construction before 2010. It therefore bases its conclusions mainly on the advice of the SNN Assembly. Eventually the Zuiderzeelijn project was added to formal plans in 1998, although further research was considered necessary. The rivalry between the Zuiderzeelijn and the Hanzelijn project is pointed out as well.

After the regional lobbying years, the government has now added the Zuiderzeelijn on the formal agenda. The idea that the Zuiderzeelijn is internationally important, as a connection towards the north of Germany, is new. The SNN Assembly of the northern provinces brought this up. Also, the notion that the Zuiderzeelijn and Hanzelijn projects are rivalry is new.

4.1.3.: *The different alternatives and private interest*

Since the Zuiderzeelijn project is added to the national agenda, different alternatives were thought of as real possibilities. Until now, the Zuiderzeelijn was mainly seen as a traditional railway link or possibly a high-speed railway track. Also, the competing Hanzelijn project is now seen as a direct rival to the goal of the Zuiderzeelijn project, and is therefore added as an alternative. In 2000, however, the cabinet concluded that the Hanzelijn and Zuiderzeelijn were actually more complementary than rivalry (V&W, 2000). There are the six main alternatives, which were later used in extensive cost-benefit analyses (Tijdelijke Commissie Infrastructuurprojecten, 2004, p. 15-16):

1. *ZZL - MZB*: a Maglev train alternative between Schiphol airport and Groningen, which only stops at major stations. At busy hours the train stops at more stations.
2. *ZZL - MZM*: a Maglev train alternative that stops at all stations between Schiphol airport and Groningen.
3. *ZZL - HSL*: a high-speed train from Schiphol airport to Groningen, which only stops at major stations. Additionally, other trains stop at all stations.
4. *ZZL - IC*: a traditional intercity railway link from Schiphol airport to Groningen, stopping at all major stations.
5. *HZL - IC+*: the Hanzelijn project as alternative for the Zuiderzeelijn project goals: a standard intercity railway link that will be upgraded for higher speeds.
6. *HZL - HSL*: a high-speed railway link using the track of the Hanzelijn.

It must be noted that in all these alternatives, the Hanzelijn project was taken for granted, even though the realisation of it was only done until the city of Lelystad. The Maglev train alternatives are relative new, and are partly a result of recent developments of the technology in Germany.

Another influence was the lobbying of a private consortium consisting of Siemens, Ballast Nedam, HBG, and ABN Amro. This consortium was called *Transrapid*, and was interested in developing the Maglev train technology in the Netherlands. Transrapid was interested in two projects: a Maglev train metro route in the Randstad and the Zuiderzeelijn project (Transrapid, 1999, p. 5). The consortium published several documents and studied the possibilities of using the Maglev train technology for the two projects. In their studies, they conclude that the market can take care of a large part of the investments (Transrapid, 2000, p. 19). One of the major advantages of a Maglev train is its capacity to accelerate relatively quickly. This opens up possibilities for multiple stops on an infrastructure link without losing too much time. A trip from Schiphol airport to Groningen could take less than an hour (Transrapid, 1999, p. 13). Nowadays, such a trip takes more than two hours and fifteen minutes. This totally new concept could create a new type of modality, which might compete with the extensive use of the car as modality to go to work. Also, the consortium points out the international benefits of extending the line towards Germany in the long-term.

4.1.4.: *Stage 2: years of research and a national reservation of money*

From the year 2000 on, several parties did a number of cost-benefit analyses. These analyses are done to count the economic advantages of each of the above-mentioned alternatives for the Zuiderzeelijn. One of the main parties in this process is The Netherlands Bureau for Economic Policy Analysis (*CPB* for short). This is an independent agency that analyzes other parties' analyses as well. Other parties involve the University of Groningen (*RUG* for short), *NEI / Ecorys* (a research and consultancy company), and *BCI* (Buck Consultants International, in cooperation with other parties). Different presumptions regarding the indirect socio-economic effects lead to different outcomes in the cost-benefit analyses. There is quite a specific and scientific debate regarding the validity of the other parties' analyses. The different conclusions of these parties will be discussed in more detail later on in the next chapter.

During these socio-economic researches, the government discussed the conclusions that should be taken regarding the decision-making process for the project. One of the advices made in 2001 is that the construction of the project could be done in phases to reduce risks (Tijdelijke Commissie Infrastructuurprojecten, 2004, p. 26). The cabinet, however, dismissed this idea, saying it would not be profitable enough. In 2001 the cabinet reserves an amount of € 2,73 billion euros for the Zuiderzeelijn (Tijdelijke Commissie Infrastructuurprojecten, 2004, p. 35). The rest of the money would come from regional governments as well as private investors. Also, a model for the procedure is set up to make sure that the decision-making process is done correctly. The cabinet decides to make use of public-private partnership for the process. In doing so, it is decided to set up a contest for private investors. Strict go or no-go decision points are scheduled in the model's procedure.

4.1.5.: *Contextual drawbacks*

In 2003, the Lower Chamber of the Netherlands decided to start a *Temporary Committee Infrastructure* (Tijdelijke Commissie Infrastructuur, or TCI for short, also known as the *Committee Duivesteijn*) to research failures in big infrastructure projects. There were several problems regarding the *Betuwelijn* (a project from the harbour of Rotterdam towards Germany) and the *HSL* (high-speed railway line from Amsterdam towards Belgium and France) projects. The committee was to investigate the causes of the cost overruns and procedural problems in these projects. The Zuiderzeelijn was added to the list of projects to investigate by this committee. The committee concluded, in their 2004 report, that there were similarities between the Betuwelijn and Zuiderzeelijn projects because of, as described in the previous paragraphs, the strong influence of regional lobbying (Tijdelijke Commissie Infrastructuurprojecten, 2004, p. 94). Because of this, the true purpose of the project could be taken in doubt: the solution became footloose from the real problem that should be the foundation of the project. During the same time, the cabinet still agreed with the decision made in 2001 to reserve money for the project and keep it on the agenda.

The conclusions of the committee resulted in a shift in thinking about the Zuiderzeelijn and other big infrastructure projects in general. There was a procedural change as a result. A new process, called *Structuurvisie Zuiderzeelijn*, was started by the Government in 2005 to make sure the Zuiderzeelijn project would not result in another project with major cost overruns and procedural issues.

4.1.6.: *Stage 3: Structuurvisie Zuiderzeelijn*

After the drawbacks of the other big infrastructure projects, the state wanted to critically deal with the Zuiderzeelijn. One of the goals of the Structuurvisie was to re-evaluate the alternatives and definition of the problem thoroughly (V&W, 2005a). Two phases were constructed: first of all, the benefits and necessity of the Zuiderzeelijn would be evaluated and a decision would be made whether to go along with the project or not. Secondly, a framework would be created for the possible decision of an alternative if the first stage has been approved. This introduced a new way of working on the project. In the years before, there had been extensive cooperation between the state and the regional parties. The relation between regional parties and the state changed in the Structuurvisie, partly because of the strict deadline and the need to make a quick decision (de Wal, 2007, p. 11). Private companies were also involved in the process, and were challenged to offer creative alternatives for the problem definition. However, their participation was stronger

before the Structuurvisie Zuiderzeelijn started. The main focus of the Structuurvisie was the importance of making a political decision. The information that was needed for this decision was brought up and summarized during the process.

In 2005, the Minister of Transport and Public Works and Watermanagement called for the help of a *Critical Review Team* (CRT for short) to ensure the quality of the process (V&W, 2005b). Also, the minister hoped that this project would serve as an example for future big infrastructure projects. The Critical Review team consisted of six independent experts from different fields. The Structuurvisie Zuiderzeelijn called for a collaborate approach to planning. That is, different stakeholders were included in the planning process. The main stakeholders will be discussed later on in more detail. In this collaboration, the Critical Review Team worked as an independent stakeholder that would advise directly to the minister. One of the main pieces of advice that this team gave was the distinction between the different goals to solve the problem. The definition of the problem could be split in two:

1. The congestion in the northern part of the Randstad (called the *Noordvleugel*).
2. The main original problem definition, that of (socio) economic development in the northern part of the Netherlands.

Following the Critical Review Team, a high-speed connection between the Randstad and the northern provinces was just one alternative to solve the second problem as mentioned above (de Wal, 2007, p. 14). Other alternatives, such as investments in northern economy (called the *regional specific approach* or *regionaal specifieke aanpak*), should be added as alternative to the evaluation of the Zuiderzeelijn. This should be done to ensure a decent Business case, a major principle of project management. Apart from cutting the solutions in two, there were also new specific transportation alternatives added to the list. For example, Wubbo Ockels, a Dutch astronaut, introduced his conceptual idea of what is called the *Superbus*. This conceptual idea is still in development. It is a bus that would travel with speeds of 180 km/h between the Randstad and Groningen.

There was a strict deadline for the Structuurvisie Zuiderzeelijn, since a decision was to be made within the year. In April of 2006, the cabinet decided not to continue with the Zuiderzeelijn as a high-speed infrastructure project. The money that was reserved for the project was to be invested in alternative projects such as the Critical Review Team suggested as possibility. A majority of the Lower Chamber however, called for a second evaluation of extra alternatives. This resulted in an update of the Structuurvisie Zuiderzeelijn, which was published in October of 2006. All the relevant research and evaluation was done at this time. However, a decision based on the complete Structuurvisie Zuiderzeelijn was not made. Around that time, new elections were starting. This meant that the next cabinet would be responsible for making a decision. Until now, July 2007, no formal decision has yet been made.

4.2.: Stakeholders

There are several major stakeholders involved in the process. These actors were actively involved during the Structuurvisie Zuiderzeelijn in 2005 and 2006. A short overview of the different stakeholders will be given below. Due to the long time-span of the project, the emphasis here will be on the stakeholders that were involved with the Structuurvisie Zuiderzeelijn. Based on this distinction, several interviews have been done to research especially the informal relations. These results can be found in the next chapter.

4.2.1.: *Government: the state and its various ministries*

There were mainly three ministries involved with the Zuiderzeelijn project. These are: the Ministry of Transport and Public Works and Watermanagement, the ministry of Spatial Planning and Environment, and the ministry of Economic Affairs. They have worked together in the Structuurvisie to create national policy documents. The Zuiderzeelijn was such a big infrastructural project, that the different ministries had to cooperate and bring in the expertise on their field. In 2001 the state reserved an amount of roughly 2,8 billion euros for the project.

4.2.2.: *Government: regional governmental agencies*

There was a heavy influence of regional parties as was pointed out in the timeline of the project. We can see that especially the northern regional governmental agencies were actively involved during the birth of the project: various cooperations and foundations were started to lobby for the construction of the Zuiderzeelijn. An example of this is the assembly between the provinces of Groningen, Friesland, Drenthe and Flevoland. Later on, several involved municipalities were added to this cooperation. Their interest is rather clear: they wish to have a better infrastructural connection to the Randstad, partly for a better economic development of the north. The regional parties would be financing the project partly as well. Partly because of their active lobbying the project was put on the agenda and they called for the update on the Structuurvisie as well.

Apart from the northern governmental parties, the Randstad was involved as well. This was a result of the split-up of the problem definition. The northern part of the Randstad (called the *northern wing* or *noordvleugel*) was less interested in a high-speed link with the north of the Netherlands. They were mostly concerned with local infrastructural issues.

4.3.: **The private sector**

One of the private companies that was involved during the decision-making process, was a consortium called Transrapid consisting of several companies (Siemens, ABN Amro, Ballast Nedam, BAM and Fluor). Their interest was first of all the construction of a Maglev railway link. Later on, they also came up with solutions for the High-Speed Train alternative. Interestingly, the consortium also researched the possibility of building the project in phases. This option was brought up by the government, but was dismissed as was mentioned earlier in the timeline. The consortium, however, encourages the construction of the line in two phases (Transrapid, 2006, p. 54, p. 65). The consortium is also positive about the socio economic effects for the northern provinces. The North Netherlands Assembly gave the consortium full support, because of their shared ambitions.

4.3.1.: *Research*

Various parties have done research for the Zuiderzeelijn project. In this case, the researchers could be viewed as a separate stakeholder. Predicting the indirect effects of big infrastructure projects is extremely difficult. Results made by the researchers are therefore not easy to comprehend. In the decision-making process, a decision is made upon data. The politicians in the cabinet and Lower Chamber are ultimately responsible for the decision, while the researchers are responsible for delivering objective data. There

are a few main research parties in the Zuiderzeelijn project: first of all there is the Dutch *Central Bureau of Statistics* (CBS for short) that, apart from doing on research, independently judges the research of other researches as well. Several parties have done social cost-benefit analyses, especially in the early years of the new millennium. Some of them are *BCI*, *NEI / Ecorys*, and the *University of Groningen*.

4.3.2.: *Critical Review Team*

Next to all the other parties, a Critical Review Team was introduced to make sure that the quality of the decision-making process was secured. They consisted of six experts from various fields. They advised the state on the process to be followed during the *Structuurvisie Zuiderzeelijn*. The use of such a team is rather new in Dutch planning. It is clear that they had an affect on the *Structuurvisie*, since they first called for a split up of the actual business case (which is, economic development in the north) by evaluating other alternatives next to a high-speed transportation link.

4.3.3.: *Sentiment: the media and public opinion*

Finally there is an additional invisible party that is all around us: the sentiment or *Zeitgeist* that forms the context of the project. One can get insight of this through analyzing publications by the media. In the *Zuiderzeelijn* project for instance, the results of the TCI committee may have had an impact on the sentiment during the decision-making process. This may have had an influence on the final decision.

5.: CASE STUDY: RESULTS

The previous chapter functioned as an introduction to the case study. A timeline of the project was given and different actors were categorized. The information was based mainly on sources like policy documents and other relevant articles. The chapter was kept as objective as possible, discussing the formal or Apollonian elements of the case. In this chapter, the informal or Dionysian side to the case will be explored. Emphasis is put on the vision and opinion of stakeholders. A good part of the chapter is based on the three interviews that have been done as research into the subject. Also the interviews from secondary sources have been used. The chapter has been split up in four divisions: the government, private companies, research, and the sentiment or *Zeitgeist*. The divisions are based on the categories as given in the previous chapter. Several other stakeholders were involved with the project that will not specifically be mentioned, because they were less relevant.

5.1.: Government

As direct source, an in-depth interview was done with Bob Demoet, project manager of the Zuiderzeelijn at the Ministry of Transport, Public Works and Watermanagement. This interview was done on June 8, 2007.

Within the government there have been two stakeholder groups: the state (combined ministries) and the regional governmental agencies. The informal relations of these parties will be discussed below. Individual informal relations, between for instance ministers or politicians, will not be discussed.

5.1.1.: Regional governmental agencies

As we have seen in the previous chapter, the northern regional governmental agencies (provinces as well as municipalities) were actively involved in the decision-making process of the Zuiderzeelijn. This is especially clear in the first stage of the project, where extensive lobbying was done by several cooperations. During these years, little research was done regarding the effects of a high-speed rail link, and what contribution it would have to the problem definition. The original problem of the case was the weak economic development of the northern provinces. The northern regional agencies argued that a better public infrastructure connection with the Randstad would be a solution to the problem. They used several arguments. At first, these arguments included:

1. Benefit of infrastructure to the national Dutch economy, because of its position as a trading country (Rotterdam harbour, Schiphol airport).
2. Rise of high-speed railways in other countries opens up new possibilities (TGV in France, Chunnel between the United Kingdom and France)
3. The motorway congestion problems that were expected in the Randstad, although it is questionable whether railways actually compete with motorways.

After roughly ten years, the Zuiderzeelijn was finally added to the formal agenda, partly because of the advice given by the North Netherlands Assembly (SNN) in 1997. The parties collaborated intensively with the ministries until the start of the *Structuurvisie*. The regional governmental parties thought of the Zuiderzeelijn as a long-term strategic project (de Wal, 2007, p. 11). The Zuiderzeelijn should offer possibilities: it does not specifically solve a fixed preset problem. One can metaphorically compare it with the

question whether the chicken or the egg came into existence first: the egg is the Zuiderzeelijn and would in the long-term give birth to an increase of passengers, the chicken (Trouw, 1992). Initially, the goal was to start the construction before 2010, as was advised by SNN back in 1997. However, the Structuurvisie Zuiderzeelijn called for a quick re-evaluation of the project: its goal was to discuss the necessity of the project. The regional governmental agencies thought this was a step back in the process. The question whether or not to build the Zuiderzeelijn was re-raised, while they thought the Structuurlijn Zuiderzeelijn should have been asking the question “how to build it” (de Wal, 2007, p. 11).

On the contrary, the regional government of the Randstad North wing were focused more on solving the local infrastructural issues. They questioned the possible positive effects of the construction of the Zuiderzeelijn (de Wal, 2007, p. 11).

5.1.2.: *The state and its ministries*

The decision-making process of the state was rather oblique until roughly the reports of the Temporary Committee Infrastructure (TCI for short) were published. In the time, however, there was extensive collaboration with the regional governmental agencies: together they were responsible for the project. The problem-definition and purpose of the Zuiderzeelijn project could have been clearer, and changed during the process. This might have made it difficult for the cabinet to make a political judgement. A changing point was the conclusion of the Temporary Committee regarding the big infrastructure projects in the Netherlands (Betuwelijn, HSL, Zuiderzeelijn), as Demoet mentioned in the interview. It is interesting to note however, that in 2001 an advice from a cooperation of the two main ministries was rather similar (VROM/V&W, 2001, p. 8). There was a need for a clear process, which made it possible for all stakeholders to participate. The ministry now thought of the project as a flower: the bud being the Zuiderzeelijn, while the leaves around it form the different stakeholders of the project. This vision was used in the Structuurvisie Zuiderzeelijn. The Lower Chamber argued that the project had such a long history, that a strict deadline should be set for the Structuurvisie. A lot of research had already been done. There was a need to organize what the project was really about. Within the year the Structuurvisie would have to be finished as a result. This was all done to prevent the failing of another big infrastructure project. Also, this process could possibly be seen as an example for similar future projects. Demoet points out that the biggest tension during the Structuurvisie was that between the ideas of the northern regional governments and the state. It partly involved discussions regarding the validity of the researches that had been done. They all agreed however, that roughly all the information was available to make a political decision. The cabinet’s decision at first, as mentioned in the previous chapter, was not to go on with the Zuiderzeelijn but use the money and invest it in what was called the Regional Specific Package. The Lower Chamber, however, did not agree fully with the decision and argued for more research regarding the standard railway alternatives. Until now, the cabinet has not yet made a decision. Differences between the regional governments and the state resulted in the delay of the decision as new elections were closing.

On a side note, several people have claimed that the state was biased in choosing negative research conclusions over other positive research conclusions towards the construction of the Zuiderzeelijn (for instance: van Dijk et al, 2006). Also, they point out that the Structuurvisie Zuiderzeelijn only allowed for consultation by stakeholders, while real participation is to be preferred: scientists and experts were heard, but their remarks

were not really used in the final advice. Their major claim was that the state had already made a decision, and was working towards that decision through the Structuurvisie.

During the Structuurvisie, the state formed a Critical Review team to ensure the quality of the process. In doing this, the government thought it necessary to add an external and independent team to the project. Team members with expertise were chosen to participate. As will be discussed later on in the two other interviews (with a representative of the consortium and with a professor at the University of Groningen), there was some doubt by other stakeholders whether or not the team was actually independent. Some members, professor A.A.J. Pols in particular, were openly against the construction of the Zuiderzeelijn before the Critical Review Team was formed. However, Demoet argues that the decision against the construction of the Zuiderzeelijn was more difficult than to decide in favour of the construction. He points out that the Zuiderzeelijn was already part of the formal agenda. Assigning members to the Critical Review Team that were openly critical before, would ensure better quality of the project. Regarding the assignment of members to the team, Demoet mentions that an informal list was made with the minister with people from diverse backgrounds. They were asked to participate after that. A second goal of the Critical Review Team was to ensure an open process: publications by the Critical Review Team were open to the public, thus ensuring that the process becomes more transparent. The advice of the team was mainly followed by the state: for instance, the distinction between an infrastructural solution and an economic solution (Regional Specific Package) was made as suggested. Also, the cabinet followed the conclusion that an infrastructural solution would not be sufficiently profitable at first.

5.2.: **Private sector**

As direct source, an in-depth interview was done with Erik van der Heijden, project developer at Siemens, which is part of the consortium. This interview was done on June 4, 2007.

The Market has had some influence on the project, especially during the first years. We have seen that the Dutch Railways, before its liberalization, came with an early strategic vision for the Zuiderzeelijn in 1988. At first these projects were all based on tradition railway or high-speed railway connections. During the later years of the twentieth century however, a technology became an optional modality for the link between Groningen and the Randstad. This was the Maglev train (magnetic levitation train). Transrapid International, a joint company of Siemens and ThyssenKrupp, introduced the technology. Transrapid also researched the possibility to construct a Maglev link in the Netherlands. As van der Heijden points out, the first research was done regarding a connection between a possible offshore airport and the Randstad. As a result, a consortium was formed between Siemens, ABN Amro, Ballast Nedam, BAM, and Fluor. This consortium investigated other possible uses for this Maglev train in the Netherlands. Their first interest was a project that would connect the major cities of the Randstad. However, after the report of the Langman Committee in 1997, there was a more direct interest in the Zuiderzeelijn project. The northern provinces in the Netherlands favoured this possibility, and were willing to invest an extra amount of money if such a Maglev train were to be built. Apart from the Maglev option, the consortium also researched the possibilities of a standard high-speed alternative.

Transrapid had an international origin, and therefore the Zuiderzeelijn was, for the first time, also put in a strong international context. In Germany there were also several plans

to build such a train link. These two projects could be combined to create an international connection between the Netherlands and Germany. We have seen that the northern provinces of the Netherlands came up with several reasons, apart from the economic development, to build a Zuiderzeelijn. The consortium added the international argument.

Van der Heijden also argues that the conclusions of the Temporary Committee Infrastructure regarding the Zuiderzeelijn were one-sided. First of all, he points out that there will be financial gains when constructing such a line and that it will have significant positive effects. He mentions some international examples like the Gothenburg-Copenhagen and TGV connection. Weighing the socio economic gains and losses, however, is a political decision. Van der Heijden argues that the decisions based on the socio economic analyses are based on the fear of starting another problematic infrastructure project. There is a lack of ambition and vision at the government. He mentions that some projects in the past have not been economically profitable, but have been built nevertheless (for instance: the Afsluitdijk). A second point of criticism regarding the conclusions of the Temporary Committee Infrastructure concerns the cost overruns at big infrastructure projects. The consortium argues that mainly the government is responsible for extra costs during the process: adding changes to the project halfway through the construction will inevitably make the project more expensive. If, however, solutions are fixed beforehand, then there will be considerably less risks for these cost overruns.

During the Structuurvisie Zuiderzeelijn the consortium, as well as other private companies, had less influence regarding the strategic purpose of the Zuiderzeelijn. The consortium was, however, asked to give further insight in the technical and financial aspects of their alternative. The consortium points out, that this is a step-back in the public-private partnership: they can inform the government of unknown possibilities. Van der Heijden points out an example from the Betuwelijn project. In this project the government asked constructors for an offer for the construction of sound shields to reduce the amount of noise. If the government had consulted private companies, however, they would have suggested adjusting the wheels of the train. This would cost less, and reduce the noise as well as the sound shields. Looking back at the Structuurvisie, van der Heijden argues that the state worked towards the cancelling of the project instead of taking into account all the object information. The cabinet lacked a clear strategic vision and ambition, and he thinks that the sentiment that was created by the Temporary Commission Infrastructure was one of the main reasons for this. Also, the consortium thinks that the forming of the Critical Review Team was subjective, as was mentioned earlier. Finally, there is specific criticism on the major alternative for the creation of an infrastructural link between the Randstad and Groningen. Investments in the north of the Netherlands have been made for years, but have had little economic effects.

The conclusion of the consortium is that there are specific trends and sentiments within decision-making and politics. The negative trend, that was a result of the two previous problematic infrastructure projects, made sure that the government lacked the willpower to continue with the decision and construction of the Zuiderzeelijn. This has in turn resulted in subjectivity with the handling of information and research during the Structuurvisie Zuiderzeelijn. Van der Heijden points out that this trend might possibly change in a more positive one in the coming years, since the fear for infrastructure projects has led to a stand-still in infrastructural development.

5.3 .: **Research**

As direct source, an interview was done with Jan Oosterhaven, professor and expert on the field of the economic effects of infrastructure. This interview was done on June 5, 2007.

Within planning, a political decision is always based on rational data. Big infrastructure projects are complex. That means that a lot of stakeholders are involved, and that a lot of different research should be done to provide the needed data. Examples of different fields of research are:

1. *Modality research*: predictions should be made regarding the quantity of use of the new infrastructure line. This also includes travel time.
2. *Financial research*: calculating direct investments and profit.
3. *Technical research*: information is needed about the technology and it's possibilities.
4. *Environmental research*: environmental impact assessments should be done.
5. *Socio economic research*: this includes predictions of indirect effects: examples include the housing prices, employment changes and economic development.

We can see that the direct effects (such as the travel time) are easier to predict than the indirect effects (such as regional economic developments). Indirect effects are difficult to measure because of the complexity of the living environment. The different researches are combined in a social cost-benefit analysis. Such an analysis shows the direct and indirect costs and benefits of a project. A decision based on this data, however, is still a political decision: are the overall benefits to be considered more important than the overall costs? It should be noted, that in a social cost-benefit analysis the absolute economic development is calculated. Regional shifts of economic development are not taken into account. When throwing a brick into a pond, waves will appear, creating relative differences of the water level. However, the absolute water level stays the same (Oosterhaven, 2005, p. 375). This change is also called the *equity effect*: the changes in social distribution (Oosterhaven, 2006, p. 16).

5.3.1 .: *Scientific issues*

This case study does not discuss the technical details of a social cost-benefit analysis in too much detail. Only those elements that are valuable for the thesis will be discussed. For instance, Oosterhaven mentioned that public infrastructure, such as the Zuiderzeelijn, should not be viewed as a direct competitor for the use of the car. There is no direct rivalry between these two modalities, unless planning policy changes the amount of car ownership (Goodwin, 1993, pp. 30-31). Additionally, public infrastructure could change living patterns. An indirect effect of this could in turn be that motorways are relieved because of the spreading of living patterns. The argument that the Zuiderzeelijn would somehow be a solution for motorway congestion problems is therefore only partly correct. Oosterhaven also points out that research can be done extensively, but that the ultimate decision is a political one that lies with the decision-makers. He also argued that the art of doing a decent cost-benefit analyses requires expertise, and that the outcomes require knowledge in order to interpret them correctly. Further political elements will be discussed in the next paragraphs.

On behalf of the University of Groningen, Oosterhaven did several social cost-benefit analyses for the Zuiderzeelijn. Two were done in 2001, of which the second was a

corrected version of the first. Oosterhaven mentioned that the first research consisted of a minor double counting. However, the *Netherlands Bureau for Economic Policy Analysis* (*Centraal Planbureau*, or *CPB* for short) did not recognize this double counting. Also, the social cost-benefit analyses are very sensitive to the choice of time span after the construction phase. And regarding the Zuiderzeelijn, all the cost-benefit analyses had to take into account the existence of the Hanzelijn, even though the project was only finished from Amsterdam to Lelystad (Oosterhaven, 2002, p. 6). The Zuiderzeelijn alternatives would appear a lot more profitable if the Hanzelijn was not taken for granted in a cost benefit-analysis (Oosterhaven, 2002, p. 7). We can conclude that there is some subjectivity involved when doing a cost-benefit analysis. This subjectivity resulted in the different outcomes of various cost-benefit analyses

5.3.2.: *Political issues*

Oosterhaven pointed out that there were some scientific issues with the cost-benefit analyses of the Zuiderzeelijn. Apart from the scientific criticism, he also has some political criticism. For instance, the CPB had made some mistakes during the Betuwelijn project by being too positive towards the benefits of the project in their calculation (Oosterhaven, 2005, p. 373). This was partly due to the fact that data was given directly by direct stakeholders who were in favour of the project. Oosterhaven had the feeling that the CPB was too cautious and negative towards the Zuiderzeelijn project. Also, he criticized the way projects in the Randstad were treated differently than projects outside the Randstad, such as the Zuiderzeelijn. Oosterhaven criticized the Temporary Committee Infrastructure for not critically investigating other projects such as the *Second Maasvlakte* (or *Tweede Maasvlakte*) and the *South Axis of Amsterdam* (or *Zuidas Amsterdam*), while these may be dubious projects. Looking at the research that has been done, he concludes that the state is biased towards projects in the Randstad. A reason for this may be that the ministries and CPB are situated in The Hague. Another political issue is the lack of expertise of politicians to comprehend the results of social cost-benefit analyses.

5.4.: **Sentiment**

As an addition source, a previous master thesis has been used, written by Maurits Schilt in 2006. It discusses the role of the media in infrastructure projects like the Zuiderzeelijn.

The sentiment or *Zeitgeist* can be viewed as a last stakeholder. Different people have different opinions about the world around us. This also depends on the time and place we live in. A good example is regular clothing fashion: what people wear now in the Netherlands, will be seen as old-fashioned in a few years. Also, people in the Netherlands will have a different view on fashion than people in the United States. These differences are based on our historic culture. There are connections with for instance the theory of *communicative rationality* by Habermas: we truth is formed by the social relations that surround us. We can also see the effect of sentiment in firm location studies (where entrepreneurs want to be situated in a country). For instance, one of the key influences of firm location is the cultural aspect (Pellenbarg, 2004, p. 15). In the Netherlands, entrepreneurs prefer to be situated in the area of Utrecht. This is not only an objective choice (based on potency and activity) but is also based on how the entrepreneur values the subjective image that he has of the area. The sentiment adds a social and emotional aspect. We can link this with the Dionysian side of humanity, as discussed earlier: a rational or Apollonian decision differs from the social emotional or Dionysian decision.

Van der Heijden also mentions the effect of this *Zeitgeist*: “It was really difficult for politicians to be in favour of it (edit: the Zuiderzeelijn), due to the specific sentiment of that moment. The political willpower was gone” (rough translation from interview). In this quote, he points at the sentiment regarding the Zuiderzeelijn just after the Temporary Committee Infrastructure published their conclusions. Oosterhaven also addressed this idea in the interview as mentioned earlier. Additionally, the regional governmental agencies of northern the Netherlands noted the same (de Wal, 2007, p. 11). Finally, the Minister of Transport, Public Works and Watermanagement noted that this sentiment was apparent as well (Critical Review Team, 2005). And there are others who publicly share this conception (see for instance: Strijker, 2006).

In his Master Thesis, Schilt researched the possibility that the sentiment regarding the Zuiderzeelijn varied in the different provinces. For his research he analyzed the role of the media. A premise to do this is that the media mirror this specific sentiment. He looked at two northern regional newspapers as well as a national newspaper, and counted the amount of negative and positive articles that were published. The newspapers were:

1. *Dagblad van het Noorden*, situated in the province of Groningen
2. *Leeuwarder Courant*, situated in the province of Friesland
3. *De Volkskrant*, a national newspaper of the Netherlands

The results showed that there was in fact a difference in sentiment between the different newspapers: compared to the national newspaper, the articles in the newspaper in Groningen were relatively positive about the project. The newspaper in Friesland, however, mirrored a relatively negative sentiment (Schilt, 2006, p. 42). We can conclude that there might be a difference in sentiment regarding the Zuiderzeelijn project in the different regions in the Netherlands.

It is also interesting to note, that a discussion is going on in the media between two professors (de Ridder and Priemus) from the Delft University of Technology. In this discussion, professor de Ridder argues that a solid scientific discussion about transformational concepts should precede premature publishing of articles in the newspapers (de Ridder, 2007). This shows that there is an opinion that the media should preferably mirror a truthful sentiment.

6.: CASE STUDY: ANALYSIS

We have seen a description of the Zuiderzeelijn case study in the previous two chapters. Until now, the case study has been descriptive in nature. The different subjective views of the different parties involved have been addressed. In this chapter the findings of the case will be linked with the theory. Both the hypothesis and proposition will, in this order, be tested and discussed.

6.1.: Hypothesis

Our first task is to answer the question whether or not the informal power relations have had an influence on the decision making process of the Zuiderzeelijn project. It should be noted, that informal power relations are neither good nor bad. This Dionysian side to social relations is ever-present. The link to social justice in the next paragraph will discuss when and whether, based on the theory, this Dionysian element has had a negative effect.

The categories of the previous chapters will be used to address the informal power relations. These are the powers of the government (regional and national), the private sector, the researchers, and the sentiment or *Zeitgeist*. The powers of the Critical Review Team will be shortly discussed as well.

6.1.1.: *The national government*

Up until the reports of the Temporary Committee Infrastructure (TCI for short), the project Zuiderzeelijn was rather open and collaborative in nature: regional governments and the private sector were involved in the process. The final responsibility has always been with the ministries and the cabinet. In the years before the report of the TCI, a clear decision was never made. We can point out two main reasons:

1. *Uncertainty* of the project: not a lot was known regarding the impacts of such a big infrastructure project. People generally agreed that something should be done to stimulate the economic development of the north, but it was unclear whether the Zuiderzeelijn would be a good tool to achieve this. As we have discussed in the theory, the problem with big infrastructure projects is that they are always uncertain in nature.
2. *A growing fear* to start a project that becomes footloose: this fear reaches a climax after the reports of the TCI. This will be discussed in more detail later on. We can point out, however, that the growing fear resulted in a shrinking willpower of the national government. A more conservative standpoint was taken, which did make sure that the margin for error was minimized.

On the other had, it was clear that something had to be done for the economic development of the northern provinces. This resulted in the advice of the Langman Committee. The economic development of the north lagged behind. This has several reasons. One reason is that, due to the regional image and infrastructural distance, companies do not want to be based in the northern provinces. Financial support by the government has not changed this that much.

Since the reports of the TCI, the government realized that the decision-making process should change. The *Structuurvisie* resulted in less participation: stakeholders were involved in the process, but more indirect as a role of consultant. A strict deadline was

set to make sure that a decision was made in a short time. In doing this, the government decided to make a decision once and for all. This means that keeping the project on the long-term agenda was impossible. We should see this as a decision in itself.

The indecisiveness is still present: the Structuurvisie did not result in a go or no-go decision. New elections resulted in the postponement of this. The indecisiveness also seems to be the result of a lack of willpower and courage with the decision-makers at the government. We can see two opposing forces that underlie this indecisiveness:

1. *The sentiment* or *Zeitgeist*, which will be discussed in more detail later on. This sentiment is negative towards the decision for the Zuiderzeelijn. It takes willpower to overcome this sentiment.
2. *Past decisions* that decided for the construction of the Zuiderzeelijn make it difficult to decide against the project after all.

The government has tried to overcome this indecisiveness in forming a Critical Review Team (CRT for short), which functions as an objective observer. Generally, the national government is seen as the impartial party. The use of such a team is therefore very interesting. On the one hand, the government will more strongly be an extra stakeholder in a collaborative approach to decision-making. The government will therefore have less of a bird-eye view over the project. Forming the Critical Review Team is a solution to this, like using a co-director when the director of a movie plays a role himself. On the other hand, however, the final responsibility is still with the ministry. And the final decision is a political choice. Demoet argued that the Structuurvisie should be seen as a flower: the bud of the flower is the ministry, around which the stakeholders form the leaves of the flower. This also shows that the ministry was not simply a stakeholder in the process. Forming the Critical Review Team somehow suggests that the ministries do not have enough objectivity, knowledge, and willpower to make a decent decision. The role of the Critical Review Team will be addressed in more detail later on.

Finally it is interesting to point out that the government was mainly thinking in a medium-term time span. This can also be seen in the relatively short time span chosen for the cost benefit analyses. A quick fix is always more attractive than an expensive sustainable solution to the problem. Buying a standard light bulb is cheaper than an energy saving light bulb. You have more money left at the moment you buy the lamp: it is therefore easier for an imaginary cabinet to decide for a standard light bulb, since the lower house will have fewer objections. However, when taking the long-term into account, the energy saving light bulb might be less expensive in the end. On the other hand, the long-term also holds more uncertainty: new and better light bulb alternatives might be produced or the lamp might not be needed anymore in the future. This is a difficult paradox to break. Indecisiveness will result in the maintaining of the status quo.

6.1.2.: *The regional government*

The northern provinces were in favour of the Zuiderzeelijn project. This resulted in lobbying for the project. It is odd, that the national government followed the advise of the North Netherlands Assembly (SSN for short) in 1997. The Langman Committee suggested that something ought to be done for the economic development of the north, but the conclusion of the committee was less progressive. The committee was, however, clearly more objective than the North Netherlands Assembly. It appears that the extensive lobbying did pay off. It is one of the reasons why the Zuiderzeelijn was eventually put on the formal agenda. Money was reserved for the project as a result. In

the power theory chapter, we made a distinction between two types of power use: the cooperative power of Habermas and the more aggressive protesting power of Foucault. In this case, the North Netherlands Assembly was at first more aggressive. The regional governments lacked the power to build the Zuiderzeelijn themselves, and had to call for national support. When the project was formally fixed, the protesting power became less important, since the regional governments had the assurance that the project was on the agenda. Cooperation between the regional and national governments followed. This is an interesting change in the use of power.

However, the early lobbying for the project also added to the oblique goal formulation of the project. The lobbying added new arguments in favour of the project. First, the economy would benefit the whole of the Netherlands. Secondly, it would solve motorway congestion problems. And thirdly, the Netherlands lagged behind in a decent high-speed rail network. These arguments may have been the reason why the project was put on the agenda, but also pulled attention away from the real goal of the project: the infrastructural gap between north and south needed to be fixed. Later, the goal was changed to developing the economy of the north. The wish for a better infrastructure connection preceded the goal formulation. In this way, the project became footloose like various other big infrastructure projects. The project would hardly become profitable when researching the costs and benefits of the Zuiderzeelijn with the final goal-definition.

During the Structuurvisie, the opposition between the regional governments and the national government grew again. For instance, they did not agree with the choice for a clear go or no-go decision moment. The regional governments became less involved, since the decision was now more a political one. A final protest in 2006 resulted in an increase of willpower on the side of politicians. Seeing that collaboration was diminished and the national decision was negative, the cooperative power was turned into the more aggressive protesting power. And it had its affect. The former decision not to go for the Zuiderzeelijn was altered: a new decision, based on extra research on several alternatives, has yet to be made. This again shows the paradox at the national government as described above.

6.1.3.: *The Critical Review Team*

We discussed the nature of the forming of the team above. There are, however, some interesting remarks to be made about the team itself. First of all, one can object to the formation of the members for the team. Demoet repeatedly mentioned that the team was objective and impartial. It is odd, then, that members were picked for the team that had a strong opinion before the team was formed. Professor Pols from the Delft University of Technology was openly against the Zuiderzeelijn project. On the other hand, Pols is an expert on the field of infrastructure planning. We can argue, however, that expertise of infrastructure planning is less important for a team member than expertise of decision-making. The team was to advise the national government. This advice was to be based on the hearing of experts and weighing all arguments for and against. Subjectivity to this hearing should be avoided, and therefore it seems dubious that people such as professor Pols was added to the Critical Review Team. This does definitely not mean that his objectivity and expertise is to be judged. It would, however, have been much wiser to add people to the team who were more impartial. The main reason for this is that it would avoid any suspicion of other stakeholders.

Secondly, the advice of the Critical Review Team was generally followed by the government. For instance, they called for the splitting up of the goal formulation. Looking back at the process, the Critical Review Team had a considerable influence on the process, even though their roots were not fixed formally. All the documents of the team were publicly accessible. This way, the planning process became more transparent. On the other hand, it would have been difficult for the government to ignore the advice of the team, since they consisted of the experts they themselves appointed. The original goal of the Structuurvisie was to have a fixed go or no-go decision moment. It must be pointed out that the Critical Review Team did constructively work in line with this goal of the Structuurvisie.

6.1.4.: *The private sector*

Often we can see that the private sector is a progressive stakeholder in infrastructure planning. This has definitely been the case with the Zuiderzeelijn project. It is not remarkable that the private sector has worked closely with the regional governments. There has also been lobbying by the private sector, especially by Transrapid International. They wanted to introduce their Maglev train technology in the Netherlands. Because of their international origin, they added international arguments to the lobbying. They argued that the Zuiderzeelijn would, in combination with a German connection, provide an important link towards Denmark. Transrapid has transboundary strategic visions, mainly because they are an international company, whereas the Netherlands remains focused on internal affairs. This did, however, add an extra argument to the project. And, as we discussed above, this may have resulted in a shift away from the original or true purpose of the Zuiderzeelijn.

In planning practice, Public Private Partnerships has become increasingly important. This made it possible for the private sector to add practical expertise to the planning process. As a result, the private sector has had a stronger influence in the earlier phases of the project. However, there has also been a growing mistrust in working together with the private sector. This may partly have been the result of the construction fraud that was brought to light in the early years of the new millennium.

6.1.5.: *Research*

In the decision-making process, a political decision is based on data. This data is delivered through research: in this case the several socio cost benefit analyses. For such a large infrastructure project it is difficult to be certain about the various indirect effects. This is why there have been several varying analyses during the years. For several reasons, one should be cautious when using these studies for decision-making. For instance:

1. *Uncertainty*, as was mentioned before. We cannot know for certain whether or not the ex ante predictions correspond with the future reality. Therefore, it is difficult to decide which assumptions should be made.
2. Difficulty in *interpreting the data*: small assumptions can lead to very different outcomes, as was pointed out by professor Oosterhaven. People need expertise to interpret the results.
3. Difficulty in *using the data*: politicians often use numbers as raw facts, since they seem to be so precise. Nevertheless, the final decision is still a political one. This decision should be based on other arguments as well. The economic and

environmental impacts are addressed, but the aspect of social justice is not included in a socio economic cost benefit analysis.

In the case study we have seen different forms of power on these three points. First of all, regarding the uncertainty of the research, there was a debate regarding the possible effects of the Zuiderzeelijn. Different research groups made different assumptions. This includes for instance the predictions regarding the amount of use of the line were it to exist and the changes in economic development until the Zuiderzeelijn is finished in construction. The Bureau for Economic Policy Analyses (CBP for short) critically analyzed the different reports. It is not this thesis' purpose to go into this technical side in more detail. Secondly, interpreting the data is difficult. For instance, Oosterhaven pointed out that he had to correct his own mistakes that went unnoticed by others. It shows that it is difficult for experts to fully grasp the science of analysis. Politicians need the information to make a decision or standpoint. It is doubtful, however, that they all understand enough of the analyses to do so. Thirdly, the hard results of the analyses have shifted the focus towards the economic and environmental aspects of the project. The final social decision is of political nature. This will be discussed in more detail later on, when the link will be made with social justice through the proposition.

Finally, it should also be noted that the Bureau for Economic Policy Analyses might have been a little conservative. This could have been the result of the slightly erroneous progressive position they took in the Betuwelijn project, which they corrected later on.

6.1.6.: *Sentiment*

The sentiment or *Zeitgeist* has had a clear effect on the decision-making process. We can see a tidal movement in national changes in sentiment. These three phases can be pointed out:

1. *The Start-up phase* of the project: in the earlier years of the project there was little willpower to add the project on the formal agenda. Lobbying in these years may also have added to the changing environment.
2. *The Formal agenda phase* started roughly with the Langman Committee and the advise of the North Netherlands Assembly. The Zuiderzeelijn project was formalised by the national government.
3. *The Structuurvisie phase* was a result of the reports of the Temporary Committee Infrastructure. During the years prior to this, the government became aware of the problems of several other big infrastructure projects.

This general sentiment can be seen throughout the Netherlands. It is, however, also interesting to note that the sentiment regarding the Zuiderzeelijn can vary geographically. Schilt points this out in his thesis. We can now understand the criticism of Oosterhaven regarding the CPB and politicians. He argues that the location of decision-makers and the CPB are positioned in the Randstad, and that they are therefore biased. It seems improbable that their bias is of Apollonian or conscious nature. It may be possible though, that the regional sentiment regarding the project influences assumptions regarding the project. Somehow this relates to the communicative rationality as discussed in the theory chapters: truth is constructed through the social relations of a person, and lies in the interaction between people. In this case, Apollonian rationality and Dionysian subconscious (how we see the world) are opposing forces.

Another remark can be made regarding this theory and the Critical Review Team. If we use the ideas of communicative rationality, then it is not wishful to add people to the team who had a strong opinion beforehand. It would mean that the truth, as they perceive it, is based on their views on the project. The team consulted other experts, but just consultation might not be enough to change a vision that was created before the project. The team might work towards biases they had beforehand. Again, this thesis does not criticize the Critical Review Team. It does wish to point out the possible problems that can arise from the formation of the team members.

Regarding the private sector, we can note that a Maglev train option might have been too progressive for the Netherlands. Even though the alternative might be a very possible solution, people think it to be a little bit futuristic. Such a plan will stumble upon a lot of resistance in a strongly bureaucratic planning culture, which is present in the Netherlands. The government will stay conservative unless risks are great and urgent solutions are required. This was the case, for instance, with the Delta Works in the Netherlands.

Finally, we have to mention that this Dionysian aspect and influence of the sentiment on the decision-making process needs further research. We can, however, point out that the sentiment may well have had a considerable influence.

6.1.7.: *Hypothesis*

The hypothesis goes as follows: do informal power relations affect the decision-making process of big infrastructure projects? We have analyzed the Zuiderzeelijn case, and can conclude that informal power relations do have an effect on the decision-making. All the different stakeholders somehow use both formal and informal powers to achieve their goals as a group. The types of power can roughly be categorized in two opposing categories:

1. *Cooperative power*: more in the line of Habermas. To diminish the possible misuse of power, collaborative planning processes are used. Stakeholders are involved in the decision-making. Together, the parties create a rationality that fits the goals and problem-definition of the project.
2. *Aggressive power*: this type of power is more in line with the Dionysian conception of Foucault. When power is misused, one needs to protest against it to uncover its power. This has been done through protests and lobbying.

It is interesting to note, that the government started to use less cooperative power during the Structuurvisie phase. There apparently is an ever-existing tendency to fall back on more aggressive forms of power. This did result in a protest near the end of the Structuurvisie. This protest did have its effect: new research was done, and until now a decision is still to be made. The influence of the sentiment or *Zeitgeist* has been addressed more freely, and therefore needs more research. However, we can point out its possible effects and how it influences the decision-making. Parallel to the powers mentioned above is the influence of the specific sentiment. Following Habermas, this is a result of our communicative rationality, and changes due to the social relations between individuals and groups.

So the answer to the question of the hypothesis is positive: yes, informal power relations do affect the decision-making process of big infrastructure projects. Therefore, it is this Dionysian side to power that should be taken into account in future projects as well. One element that has not been discussed here is the informal power relations on more local

and personal interests. We can think of corruption, for instance. However, this is sheer impossible to research. And on top of that, it may have less influence on social justice, which is where this thesis started out. It is this link that will hereafter be discussed.

6.2 .: **Proposition**

We have seen that informal power relations can affect the planning of big infrastructure projects. The implications of these affects on social justice will be explained below. This is done based on the theory as discussed at the beginning of this thesis. The goal of this thesis was not to investigate any *absolute* social infrastructure inequalities in regions. This thesis does wish to show that power relations can affect changes in *relative* social infrastructure inequalities: that is, comparing the no-go situation with the outcome of new plans (the Zuiderzeelijn). In doing so, several different standpoints in social justice will be used. This is in line with the pragmatic approach as discussed in the duality chapter. To make the link with social justice more clear, a distinction has been made between three types of impacts on social justice. Note, however, that the first two types of social injustice overlap at times. The distinctions are:

1. *Geographical implications*: social inequalities are weighed based on their geographical situation. This can be based on the differences in available infrastructure in the region.
2. *Group implications*: social inequalities are weighed based on groups with different standpoints. This can be based on, for instance, forms of oppression by groups over other groups.
3. *Sentiment*: this sentiment, as discussed during the testing of the hypothesis, crosses and influences the first two distinctions of social justice. The sentiment can affect the other two implications, but the implications can also change the sentiment. In the figure below, the line shows the fluctuating sentiment.

In testing the proposition, the implications as shown above will be discussed and linked back to the theory.

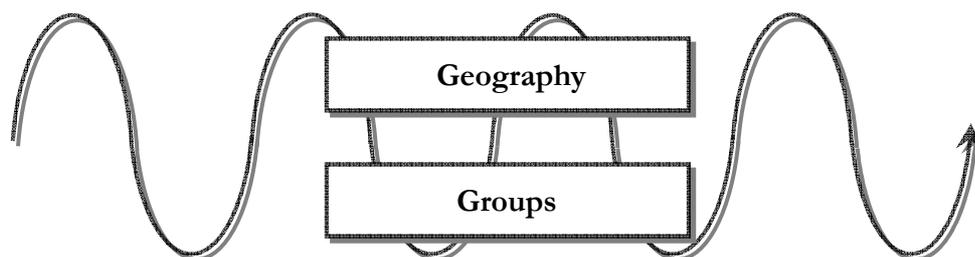


Figure 3: *fluctuating sentiment intertwined with social justice*

6.2.1 .: *Geographical implications*

The main underlying force behind the Zuiderzeelijn was the infrastructure gap between the Randstad and the north of the Netherlands. In this thesis we are looking at the social inequalities within infrastructure planning. This means that, for this thesis, the economic development of the northern provinces is less important than the changes in availability

of infrastructure. Several changes, resulting from informal power relations as discussed earlier, can be pointed out in this case study:

1. *Problem-definition*: the problem-definition changed during the long process of the Zuiderzeelijn project.
2. *Goal formulation*: because of the changing problem definition, new goals were formulated.
3. *Recent policy*: the new minister of Transport, Public Works and Watermanagement has announced his policy plans.

During the start-up phase, the *problem-definition* was the visually missing link between the Randstad and Groningen. The first plans were not specifically based on research, but on the feeling that the north needed a better connection. Because of lobbying of the north and private sector, the plan was added on the formal agenda. By this time, the problem-definition evolved into the lagging behind of the economic development of the north. However, because of the weight and duration of the project, this problem-definition was overshadowed by the question whether or not the Zuiderzeelijn would be economically profitable. During the Structuurvisie phase, the problem-definition was discussed and fixed. The Critical Review Team advised to split up the problem-definition in two: the economic development of the north of the Netherlands and the infrastructural congestion in the north of the Randstad. This is a critical difference. In figure 1 of the introduction, the process between the need for infrastructure and the outputs (that is: the plans or decisions) is shown. The question mark resembles whether the actual outputs are in line with the original need for infrastructure. In this case, we can argue that the problem-definition was either changed significantly or policy failed to mention the true problem-definition at an early stage. Due to lobbying and other informal power relations, the congestion problems of the north of the Randstad were added to the problem-definition. This results in a shift of attention that is focused towards the Randstad. We can now use the theories of social justice on this issue. Walzer would argue that the sphere of regional location should not affect the sphere of infrastructure. In other words, where one lives geographically should not have a great influence on the availability of infrastructure. Rawls would add that the focus of attention towards the Randstad is in contrast with his second principle: the least advantaged (the north of the Netherlands) do not profit the most if only a solution is found for the congestion problems in the Randstad. Nozick might argue, however, that paying tax (which is a sin in itself) for a project that will not give you any profit is wrong. And this is the case if the Zuiderzeelijn would be built: the large majority of provinces will not benefit from the big project, even though they do pay for it eventually (via taxes). On the other hand, this argument could be nullified by saying that the minority of the provinces have more often paid for projects that did not give them any profit.

Secondly, the *goal formulation* changed as well. New alternatives were added since the real goal became the lagging behind of the economic development of the north. These new alternatives included regional investments in the northern provinces. This has, however, partly been done in the years prior to the Zuiderzeelijn project, and without remarkable success. It might be a quick fix more than a sustainable solution. One must add, however, that investing in local infrastructure in the north can be sustainable as well. But compared to the Zuiderzeelijn this might be less so. In line with the problem-definition, the reducing of congestion problems of the northern Randstad was added to the goal formulation. This has the same implications as mentioned above. Additionally, Rawls argues that we have to take into account the just savings principle. This means, that we should add future generations to our list of involved stakeholders. We should therefore

widen the time-span of the Zuiderzeelijn project. This way the Zuiderzeelijn might prove to be more profitable than appears it now appears in researches. We can argue that the just savings principle (political in nature) was not fully used in the Zuiderzeelijn project.

Finally, new policy shows that the government has a strong focus on projects in the Randstad (NOS, 2007). Of all the planned projects, all of them are in or near the Randstad. This might be the main issue of social justice. Investing in the Randstad may seem economically most profitable, but can hardly go on forever. For every invested project in the Randstad, the gap between the Randstad and the north will grow: the Randstad gains new infrastructure, the northern provinces do not. This goes in sharp contrast with what Rawls mentions in his second principle. In this case, the least advantaged profit the least as well. Now the argument of Nozick, as described above, can be used as well: the least advantaged do pay national taxes but do not see any infrastructure in return. It must be mentioned, that with infrastructure we generally here mean public infrastructure. One might object to these arguments, saying that investments in the Randstad will stimulate the economy of the Netherlands as a whole. We are, however, more specifically addressing the issue of (public) infrastructure and not the economic development.

6.2.2.: *Group implications*

Addressing the influence of groups is another way of explaining issues of social justice. Groups in general can also be categorized on geographic location. We have covered that above. Here we will discuss the informal power relations between stakeholders on a lower scale. We can make a distinction between three issues:

1. *Lobbying*: there has been extensive lobbying during the Zuiderzeelijn project, and especially in the years of the start-up and formalization phase of the project.
2. *Formation the Critical Review Team*: forming an external team of experts is a relatively new phenomenon in such a big infrastructure project. There are some issues to be discussed surrounding the adding of members to the team.
3. *Work of the Critical Review Team*: the functioning of the team itself can be shortly discussed as well.

First of all, we have seen that *lobbying* (as an informal power) has had an impact on the planning process. In a way, lobbying for a project that would reduce the gap between the Randstad and the north does not go against any principle of social justice. On the other hand, lobbying against such a project would be a wrong thing when taking into account the second principle of Rawls for instance. In this case, the theory of Young can be used appropriately: some form of oppression is visible when the north of the Netherlands can do nothing to reach their goals or wishes. They are powerless if extensive lobbying changes the standpoints of the decision-makers. Finally, it should be mentioned that positive lobbying by the private sector and the regional governments resulted in oblique problem-definitions and goal formulations. In a sense, this led to the issues of social justice as described above in the arguments regarding the geographical implications.

Secondly, the *formation of the Critical Review Team* has aroused some suspicion. People who were biased against the Zuiderzeelijn were picked for the team. Their expertise may be great, but it can be argued that this is not a wishful process. This means that people who were biased for the Zuiderzeelijn should not be picked either. Through the net of communicative rationality, it could mean that the final advise of the Critical Review Team was coloured by the members' standpoints beforehand. We can link this as well

with forms of oppression in Young's theory: those groups that are involved with the decision-making process can consciously or subconsciously affect the outcome of the advice.

Finally, there are a few remarks to be made regarding the *work of the Critical Review Team*. If the formation of the team was obscure, then the work of the Critical Review Team can be obscure as well. It could result in subjective hearing of experts with a different standpoint, which in turn would strengthen the injustice of the argument regarding the formation of the team. Also, the informal power of the team seemed to be strong. At least their advice was followed throughout the project. One can make objections to the role of the Critical Review Team. They consist of experts on infrastructure projects or guiding big projects in general. They advice in decision-making, yet they are no politicians. The final decision, however, is a political one. Arguments of distributive welfare are not taken into account in any Cost Benefit Analyses. They should be weighed against the socio economical costs and benefits as well as the ecological impacts. To conclude: one can object to any following actions by this team when the formation of a team such as the Critical Review Team is obscure.

6.2.3.: *Sentiment*

The *Zeitgeist* crosses the geographical and group implications on social justice. In the introduction we can read that nowadays the environmental and economic aspects overshadows the social justice element of planning. This was clear in the *Zuiderzeelijn* project as well. Cost Benefit Analyses do not cover the question whether or not distributional welfare is to be preferred. They only cover the absolute changes in welfare. This is the political side to decision-making that is less formal in nature. It takes courage to cover this side as much as the economic and environmental sides. The national government, however, seemed to have little willpower to decide for the *Zuiderzeelijn*. This is based partly on the sentimental changes that we have seen in the part about the hypothesis. The lack of willpower and courage is understandable, but only strengthens the forces of injustice as discussed until now: tackling issues of social justice always takes courage, since it is never the most obvious and easy solution.

6.2.4.: *Proposition*

The proposition in this thesis is a very philosophical one, bridging informal power relations with social justice. The pragmatic approach of using different theories to explore social justice diminishes the chance of subjectivity. We have looked specifically at the inequalities within infrastructure. Changes in these inequalities can at times be called socially unjust. As we have seen, there are several issues that can be seen as socially unjust in the eyes of the different theories of social justice.

7.: CONCLUSION

We still have to make several final remarks and conclusions. These will be addressed in this final chapter. First of all, a quick review of the theory will be given to sum up what has been done until now. Based on this, several concluding remarks will be made regarding the hypothesis and proposition. We will then have a look at the need for possible further research, and how this can be done. Finally, recommendations will be made that are based on the conclusions regarding the hypothesis and proposition.

7.1.: *Review of the theory*

The underlying motivation for this thesis has been the lack of a clear and practical use of social justice in big infrastructure projects. The decision-making process of such a mega project takes relatively long since the impacts and construction of them hold a lot of uncertainties. One has a distinct feeling that informal power relations in such infrastructure projects are as important as the formal relations. The informal relations, however, are less visible to the public. The thesis was split up in two parts: one part that discussed the theory and one part in which the research has been addressed.

In the theoretical part, three main themes were pointed out, namely: social justice, infrastructure planning, and power relations. These themes were explored in separate chapters. First, the importance of social justice was discussed and different terms were explained. With inequalities we mean the differences between groups. Social justice or injustice can especially be measured by relative changes to the inequalities. The chapter also addressed several theories within philosophical thinking about social justice. We saw the standpoints of thinkers such as Nozick, Rawls, Walzer, and Young. In the second theme, the field of infrastructure planning was explored. This covered the different planning tools (cost-benefit analyses) as well as the characteristics of big infrastructure projects. The relation between infrastructure planning and social justice was also made clear. On top of this, the final theme was that of power relations. A distinction was made between the informal and formal power relations. In intertwining power relations with the other two themes, a proposition was made showing the rationale behind their relationships. The proposition is mainly philosophical and theoretical in nature:

Proposition: informal power relations affect social justice through inequalities within infrastructure.

To bridge the gap between theory and research, a pragmatic approach was introduced in the chapter about duality. This approach was used throughout the research. Based on the proposition, a hypothesis was created was tested in a research.

Hypothesis: informal power relations affect the decision-making process of big infrastructure projects.

7.2.: *Review of the research*

To test the hypothesis, a case was chosen. This was the Zuiderzeelijn project in the Netherlands. There were several reasons for choosing this case. One of the main reasons was the heavy discussion about the Zuiderzeelijn project. Also, there was a distinct feeling that decision-makers were not paying a lot of attention to issues of social justice in the project. It seemed possible that the informal power relations were more of an

influence in the process that the formal power relations. To constructively research the case, the research was split up in two major elements: processing the available relevant data and doing in-depth interviews to understand more of the personal standpoints and views on the project. There proved to be a lot of available data. Numerous reports on the project, from different fields of expertise, were published. Secondary sources discussed their findings from doing interviews with the stakeholders as well.

In researching the case, a distinction was made between the major different stakeholders: these included the national government, the regional governments, the private sector, and the researchers. On top of this, the apparent sentiment or *Zeitgeist* appeared to have a heavy influence as well, and was therefore treated as an additional stakeholder in the project.

7.3 .: *The hypothesis*

The conclusions of the hypothesis were not oblique: the informal power relations did have an influence on the decision-making process. The Zuiderzeelijn was put on the formal agenda partly due to lobbying by the regional governments and the private sector in the start-up phase of the project. The national government, however, had a growing fear for big infrastructure projects. The government proved to have little willpower to make a clear decision, even though money was reserved for the project, and the project was put on the formal agenda. A number of cost-benefit analyses were done, but this did not offer a clear answer to the question whether or not the project should be constructed. Finally, the reports of the Temporary Committee Infrastructure started a new phase in the decision-making process. A *Structuurvisie* was created which would end all the vagueness surrounding the project. A clear go or no-go decision was asked for. A Critical Review Team was formed, which gave advice regarding this decision. The project was cancelled, but was revived shortly afterwards. Until now (July 2007), no clear decision has been made. One of the major findings was that the decision-makers lacked in willpower and courage, although the reason for this attitude is a logical result of the *Zeitgeist* of that moment. The project is very complex since numerous stakeholders are involved, and these stakeholders come from various different regions. The sentiment varies geographically, and it could well vary between different groups or stakeholders as well. The truth about the project may therefore vary between the different stakeholders. Collaboration can diminish the difference. However, a final decision will still have to be made, and this decision is of political nature. At the end, both deciding against and for the project proved to be difficult decisions to make by the national government. On the one hand, the project was already formally put on the agenda. It takes some courage to cancel the project after all. On the other hand, there was a great fear and negative sentiment regarding the project. This may have been the crucial paradox explaining why no decision has yet been made. Lately there has been an awkward silence regarding the Zuiderzeelijn. It appears as though the Zuiderzeelijn has turned into an *enfant terrible*: it has caused many heated debates and a good decision now seems impossible to make.

Finally, the use of power is interesting in itself. A distinction was made between two sides of power use: one is a Foucauldian side to power, which is based on protesting against misuses of power. The other is a Habermasian approach to power, where collaboration is used to create and change the communicative rationality together. The purely collaborative or Dionysian approach to planning can lead to indecisiveness on the side of the decision-makers, because attention goes to the complexity of all the different stakeholders involved. It does, however, work well with the Habermasian approach. This

changes when the government decides for a more Apollonian or rational approach to decision-making, as was the case during the Structuurvisie phase of the Zuiderzeelijn. This, however, led to protests against the final decision. We can see that there is a relation between the forms of planning and the uses of power.

7.4 .: *The proposition*

So, the informal power relations did have an influence on the project. The implications of these influences were analyzed with the use of the proposition as mentioned above. It appears plausible that these informal power relations do have an effect on social justice. A distinction was made between different forms of injustice: those of geographical nature and those involving different groups. There was a lot of vagueness surrounding the problem-definition and goal formulation of the project. Informal power relations only added to this obliqueness. This is specifically a result of lobbying in the start-up phase of the project. Finally, changing the goal formulation and problem-definition in the Structuurvisie phase had an influence on social justice. The focus was put on physical problem solving. The problem was split in two: the congestion problems in the north of the Randstad were now also formal problems of the Zuiderzeelijn project. The project was no longer focused on the northern provinces of the Netherlands. Interestingly enough, this might be partly due to the lobbying done by the regional provinces themselves: they added extra arguments to the discussion without making clear what their actual goal was. Their goal was based on the inequalities surrounding public infrastructure. The Zuiderzeelijn project would have to bridge this gap. Other arguments, like the international possibilities or the possibilities for the north of the Randstad are nothing more than secondary arguments for this particular project. On a side note, it should be pointed out that the role of the Critical Review Team is positively interesting. The informal formation of the team does, however, raise some suspicion. Also, their advice is to some extent political in nature. They do, however, underline that the final decision lies with the government, and is political in nature. However, it is difficult not to follow the advice of a team of experts: it could lead to a lot of public political resistance if they ignored the advice.

Recently, the minister of Transport, Public Works and Watermanagement announced his infrastructural plans. These plans were all focused on the Randstad and its surrounding cities. It appears that the idea that social inequalities are not addressed sufficiently is correct. Economic and environmental factors are weighed heavier because of the availability of relevant planning tools: cost-benefit analyses and environmental impact assessments add to their importance. Sustainability has three base lines: an economic side, an environmental side, and a social side. Ignoring the theories of social justice will therefore result in projects that are not fully sustainable. In line with this, it is not advisable to keep the focus of attention only on infrastructure investments in the Randstad.

7.5 .: *Further research*

This thesis should be seen as a pilot study for further research. A typology was given to address the affects of informal power relations on social justice. The link between planning practice and the proposition that was given could be examined in more detail. For this thesis, only a limited number of interviews were done. One should be aware of this. The conclusions are based on the little amount of direct sources, although interviews from secondary sources were used to back up the results. Still, more (elite)

interviews within this case would give a representation of Zuiderzeelijn that is more complete. Interviewing a bigger variety of stakeholders would therefore improve the strength of the conclusions. These interviews can be based on the conclusions of this thesis. Possible further interviews could include:

1. *Members of the Critical Review Team*: some conclusions involved the formation and functioning of this team. Although their opinion about the process is publicly accessible, further interviewing could provide interesting data.
2. *Regional governments* have been important stakeholders in the Zuiderzeelijn project. Interviewing people from the North Netherlands Assembly could give more insight in their standpoints regarding the conclusions of this thesis.
3. *Ministers*, who were involved with the Zuiderzeelijn project, could be interviewed as well. They stand at the top of the decision-making ladder. It may, however, be impossible to arrange such an interview. Partly, because of the current sentiment and partly because of their loyalty and personal motivation.

Finally, this study was done in the Netherlands. Decision-making policies and planning cultures are different in other countries. As mentioned, the sentiment can vary geographically. Therefore, doing similar research in other countries could make it possible to compare the effects of informal power relations in different planning cultures. Countries with a political planning culture like Belgium might be especially interesting. This would give a more complete representation of the actual effects of informal power relations on social justice in big infrastructure projects.

7.6 .: *Recommendations*

So what can we learn from these results? Informal power relations affect the decision-making process of infrastructure projects. These informal power relations add to social injustice: the amount of inequalities increases. A few recommendations will be made below. We will start off with the recommendations that are most objective, and will gradually move towards more subjective inspirations that are a result from the research in this thesis.

First of all, it seems important to unchain the aspect of social justice from the environmental and economic base lines. Social justice is a topic in itself, and cannot be integrated with arguments of the other elements. Economic and environmental analyses obscure the aspect of social justice. The pile of economic and environmental research is relatively huge. This does not mean, however, that the elements are more important in the decision-making. More focus on social justice will lead to more sustainability as well. Or, as Lowe points out, “A sustainable world has to be a more equitable world” (Lowe, 2004, p. 38). Also, secondary arguments, which were added due to the lobbying of the private sector and regional governments, make the problem-definition and goal formulation ever more vague. This should be avoided. It is wishful to formulate clearly what the true purpose of a project is. If its goal is to bridge the gap of inequalities within infrastructure availability, then it is less important that the project has a significant economic profitability. However, it is difficult for decision-makers to take these social inequalities into account, since the majority of the people will not benefit. The minority and worst-off will, but politics is based on democracy and therefore majority.

Secondly, and based on the first recommendation, good decision-making within big and complex infrastructure projects is based on Dionysian or collaborative planning: this creates willpower and leads to a communicative rationality that is shared by the

stakeholders. This also means that public-private partnerships are wishful as well. Possibilities and expertise are brought into the project at an early stage. A team of planners will never know as much as the whole of the stakeholders combined in a collaborative effort. Also, in collaborating together, informal power relations become less strong. The reason for this is that the collaboration evens out the importance of one particular stakeholder. Power is more centralized in an Apollonian or rational planning process. There is, however, a downside to this type of planning. Especially in bureaucratic countries, collaborative planning can lead to slow decision-making processes. In very complex projects, it will be sheer impossible to come up with a solution in which all the stakeholders are happy. In fact, for every happy stakeholder one stakeholder might be unhappy. One will always pay for another's benefit to some extent.

Thirdly, to overcome the downside to the previous recommendation, the highest decision-makers at the government need more courage. Ideally, decision-makers know when to make the bridge between the Apollonian and Dionysian forms of planning. At some point, one will have to make a final rational or Apollonian decision. This takes courage, especially since decision-makers may get a lot of criticism. For instance, the Temporary Committee Infrastructure judged the process of the Betuwelijn rather harshly. On the other hand, Flyvbjerg did not agree with this. He argued that the cost overruns were considerably lower than with comparable infrastructure projects. Now that the Betuwelijn is about to be opened, people might start to be more positive about the project. It could well be, that building the Zuiderzeelijn in a few years will be a lot pricier because of the possible denser living area. This shows a paradox: there should be enough people to use the infrastructure line. In densely populated areas it will be costly to construct such a piece of infrastructure, but it will be more profitable. On the other hand, in less densely populated areas such an infrastructure link is less expensive but also less needed. Should we wait until the need and the price are higher?

Fourthly, a recommendation should be made regarding the downside to the previous recommendation. Infrastructure planning is a serious matter, but the Apollonian seriousness might have gone a little too far. The planning of the environment affects us all: we see the buildings in which we live and work and we use infrastructure to travel between them. Dutch architect Frits van Dongen points out that *Architecture is fun* (see Appendix B). While the field of planning is a very interesting one, we find little of this fun in planning practice and decision-making. There are a lot of new and interesting infrastructural possibilities, yet we remain rather conservative in current planning practice. So, how can we achieve such a shift towards a new planning, in which *planning is fun*?

A final recommendation will close the circle of this thesis. We started off with an explanation of Manuel Castells' distinction between the space of places and the space of flows. We will now finish with a quote by Castells. This quote goes into the question raised above in the previous recommendation.

"If we are able to seize the opportunity of renewing city and regional planning to confront the challenges of the information Age, maybe we could contribute to link up science, technology, culture, and politics, thus enabling the local to control the global, so that function and meaning, productivity and social justice are integrated and reconciled

Let it be"

- (Castells, 1998, p. 31)

8 .: REFERENCES

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