

Does One's Origin Affect One's Bicycle Use?

A study on the similarities and differences in bicycle use between immigrant and native inhabitants of two Dutch neighbourhoods.

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COLOFON

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“Je neemt gewoon de fiets. Iedereen fietst. Je zou niet weten hoe het anders moet”

(Kuipers, 2010).

ENGLISH SUMMARY

Dutch cycling culture differs from that of the rest of the world. It is supported by policy measures but also by society and therefore everybody seems to cycle and even the prime-minister and queen do it. It is therefore safe to say that cycling is truly part of the Dutch habitus. According to previous research this has three main reasons: almost the entire country is flat, the Dutch cities in the past did not create a pro-car infrastructure and also the protestant ethic of the Dutch is said to be part of the reason why the bicycle suits the Dutch in their transport needs. It is also safe to say that in many other countries around the world cycling is perceived less normal. It seems a combination of hilly terrain, low urban density and cultures who regard cycling as inappropriate for women or only suitable for the poor. This seems to be the case in the Orient but also the Western world.

To accommodate the five million daily cyclists, Dutch planners created 35.000 kilometres of bicycle paths and 4700 kilometres bicycle lanes. Thought is that when a bicycle path / lane is created one will cycle. Dutch cycling policy is therefore predominately focused on influencing one's rational choice. However not everybody is affected by these arguments. Therefore, by marketing and social policy, Dutch planners try to influence the people's emotional choices. However effects by the afore-mentioned measures are either not known or rather small. And although every year a total of 487 million euro's are spent on cycling related policy, not everybody cycles. Certain groups in society remain behind. Research indicates that lower educated and inhabitants with a non-Western background cycle below the Dutch average. It is said that the bicycle has a negative image among them or that they, and especially non-Western women, are afraid of cycling through (busy) traffic. It is important to question whether these are the true reasons, as these findings might help in writing better cycling policy, necessary because Dutch inner cities might not be able to accommodate a growing group of non-cyclists. Also, cycling is perceived as the most healthy and non-polluting mode of transport and might overcome personal problems as for instance obese.

To indicate if an inhabitant of non-Western origin truly cycles less than his neighbour of Dutch origin a survey is conducted among inhabitants of two neighbourhoods. The survey also examined if higher educated inhabitants of non-Western origin cycle more than lower educated non-Westerners. *De Fietsersbond* proposed the first neighbourhood, i.e. Hoograven in Utrecht. The second neighbourhood, Boschveld in 's-Hertogenbosch, was chosen for a number of reasons. It are neighbourhoods that are comparable by origin of its inhabitants, urban problems and lower than average bicycle use. But both neighbourhoods differ in size.

The study done indicates that cycling policy in Hoograven focuses on different aspects, it is both hard (infrastructure) as soft (social policy). Furthermore it found that non-Western youth cycles and does not regard the bicycle as a vehicle that undermines one's status. However bicycle use of especially Hoogravens youth is found to be mostly within the neighbourhood, as for trips outside the area more comfortable options are available and chosen. Participants of cycling lessons for non-Western woman organised in the neighbourhood claim that the cycling lessons are successful, but exact figures are not known. Bicycle shop-keepers from Hoograven claim that everybody in the neighbourhood cycles but argue that there are differences in attitudes to the bicycle. In Boschveld was found that the municipal government tried (and succeeded) to stimulate

cycling in the neighbourhood and 's-Hertogenbosch as a whole. This was mainly done by infrastructure changes. However also by social policy *id est* cycling lessons is tried to increase cycling levels. According to the teachers and municipal government policy advisor these lessons are successful, but exact figures are not known.

Answers from the respondents indicate that bicycle use in Hoograven is higher than in Boschveld: the percentage of respondents that does not cycle is higher in Boschveld than in Hoograven. In Hoograven 27.19% does not cycle, in Boschveld this is 39.45%. In Hoograven a quarter of the respondents answered that cycling suits their way of live, in Boschveld this was only 16.5%. This might indicate that Hoogravens cycling culture is stronger than in Boschveld, which explains the differences in cycling. Also the lower employment number in Boschveld might be one of the explanations to why is cycled less as well that inhabitants of Boschveld claim to have more reasons not to cycle.

The general survey outcomes make clear that Dutch respondents indeed cycle more often and over longer distances. Respondents of non-Western origin cycle less often and fewer kilometres, these differences are statistically significant. Respondents of non-Western origin often (almost two out of three) do not cycle more than five kilometres. In contrast to respondents of Dutch origin. Answers of the Dutch respondents indicate that only one out of three does not cycle more than five kilometres. But one must keep in mind that non-Western respondents do cycle, this is opposed to findings from previous research. Also it was found that higher educated cycle more than lower educated. But the higher educated respondents of non-Western origin do not cycle more than those who participated in a study at a lower level, this is opposed to findings of previous research. Important to note is that this research found that non-Western inhabitants of Hoograven and Boschveld do cycle, but not as much as native Dutch. They, however, do not have negative thoughts about the bicycle and in most cases can ride and have access to a bicycle. They just do not do it as much as the Dutch.

The difference might be explained by the influence of the habitus. Pierre Bourdieu described habitus as the product that produces strategies on how to deal with daily business. It is unconscious and is influenced by history and social structures one is in. Historically, the bicycle does not have a dominant position in the habitus of the non-Western immigrant. This is simply caused by the fact that cycling is perceived different in their (or their parents) country of origin. Dutch kids are taught by their parents how to cycle, this is often different for the non-Dutch. They grow up in countries where the bicycle is not used as a daily mode of transport, therefore, when coming to the Netherlands, learning how to cycle is not one of the priorities, neither is teaching their children how to cycle.

To overcome the differences the following recommendations are given. More research should be done on the differences in the perceived cycling comfort and ease, as well as that more research should be done on the successes of the cycling lessons and which changes are needed to encourage one to cycle after the lessons. Improvements in bicycle infrastructure should be continued, as well as discouraging car use. The last recommendation is to focus bicycle marketing on youth, instead of on adults. Introduce the bicycle at an early age, so the bicycle gets an active role within the habitus, or an active habitual role. Not growing up with a bicycle might be the reason the differences in bicycle use exist.

DUTCH SUMMARY

De Nederlandse fietscultuur verschilt met die uit andere delen van de wereld. Fietsen wordt in Nederland zowel door beleid als in de samenleving ondersteund. Zo fietsen in Nederland zelfs de minister president en koningin waardoor het soms lijkt alsof het hele land het doet. Volgens eerder gedaan onderzoek heeft dit drie redenen, de eerste is omdat (bijna) het hele land zo plat als een dubbeltje is, de tweede reden is omdat de Nederlandse steden in het verleden geen pro-auto infrastructuur hebben aangelegd. De derde reden is de protestantse ethiek die maakt dat de fiets maatschappelijk als een geschikt vervoersmiddel wordt gezien. In andere delen van de wereld, zowel in het Oosten als het Westen, is fietsen minder gebruikelijk. Het lijkt een combinatie van heuvelachtig terrein, lage stedelijke dichtheden en culturen die fietsen ervaren als een vervoersmiddel dat niet geschikt voor vrouwen is of alleen als een manier van vervoer voor de armen.

Om de vijf miljoen dagelijkse fietsers in Nederland de ruimte te geven, is ongeveer 35.000 kilometer fietspad en 4.700 kilometer aan fietsstroken aangelegd. Verondersteld wordt dat wanneer er een fietspad is mensen daar overheen zullen fietsen. Het Nederlands fietsbeleid is in die zin dan ook vooral gericht op het beïnvloeden van iemands rationele transportkeuze. Middels marketing en sociaal beleid wordt ook getracht om iemands emoties te beïnvloeden. Dan moet bijvoorbeeld gedacht worden aan het benadrukken positieve kanten van het fietsen. Zo wijzen fietsfanaten en hun marketeers er sinds een aantal jaren op hoe gezond, milieuvriendelijk, snel en makkelijk fietsen is. Mensen die niet kunnen fietsen worden door middel van fietslessen op de fiets gezet. Maar de successen van deze vormen van beleid zijn onduidelijk, want van de successen van zowel fietsmarketing als de fietslessen zijn geen tot weinig cijfers bekend. Daarbij wordt aan het nut van de fietslessen door diverse partijen openlijk getwijfeld. En ondanks dat er elk jaar niet minder dan 487 miljoen euro wordt gespendeerd aan fietsgerelateerd beleid, fietst niet iedereen. Bepaalde groepen in de Nederlandse samenleving blijven achter. Onderzoek wijst uit dat het vooral lager opgeleiden en inwoners van niet-westerse afkomst zijn die minder fietsen dan het Nederlands gemiddelde. Er wordt gezegd dat het komt doordat de fiets bij de jeugd een negatief imago heeft en dat vrouwen van niet-westerse afkomst bang zijn om te fietsen. Het is belangrijk om te achterhalen wat de werkelijke redenen zijn waarom mensen niet fietsen, want meer inzicht hierin kan helpen bij het schrijven van (beter) beleid. De Nederlandse binnenstad kan namelijk geen groeiende groep niet-fietsers aan. Daarbij, fietsen is de meest gezonde en niet-vervuilende manier van vervoer en kan persoonlijke problemen zoals overgewicht oplossen. De vraag is dan ook of er gericht beleid voor deze groepen moet worden geschreven.

Om te leren of inwoners van niet-westerse afkomst werkelijk minder fietsen dan hun Nederlandse buurman is een enquête afgenomen bij inwoners van twee wijken. Daarbij is ook onderzocht of hoger opgeleiden van niet-westerse afkomst meer fietsen dan lager opgeleiden van niet-westerse afkomst. De eerste wijk, Hoograven in Utrecht, is bepaald door De Fietsersbond. De tweede wijk, Boschveld in 's-Hertogenbosch, is gekozen op basis van een aantal criteria. Het zijn wijken waarvan de afkomst van de bewoners vergelijkbaar is, stedelijke problemen spelen en het fietsgebruik lager is dan gemiddeld. Maar beide wijken verschillen in grootte.

De gedane studie wijst uit dat het fietsbeleid in beide wijken zich richt op verschillende aspecten. Het is zowel hard (infrastructuur) als zacht (sociaal). In Hoograven bleek dat niet-westerse jeugd de fiets niet ervaart als iets dat afbreuk doet aan je status en dan ook gewoon fietst. Maar doet dit voornamelijk binnen de wijk omdat, zo vindt men, er meer comfortabeler opties zijn voor vervoer buiten de wijk. Deelnemers van fietslessen in Hoograven zeggen dat zij na de lessen zullen gaan fietsen, maar cijfers zijn niet bekend. Eigenaren van fietswinkels in Hoograven zeggen dat iedereen in de wijk fietst maar dat er verschillen zitten in de ideeën ten aanzien van de fiets. In Boschveld werd duidelijk dat de gemeente heeft getracht en daarin is geslaagd om het fietsen in de wijk en de stad als geheel te stimuleren middels aanpassingen in de infrastructuur. Maar ook doormiddel van marketing en sociaal beleid, dat wil zeggen fietslessen, wordt getracht om een groter aantal fietsers te krijgen. Volgens leraren en de lokale overheid is dit beleid succesvol, maar ook hier zijn geen cijfers bekend over de daadwerkelijke successen.

Antwoorden van 286 respondenten maken duidelijk dat het fietsgebruik in Hoograven hoger is dan in Boschveld. Daarbij is het percentage respondenten dat überhaupt niet fietst in Boschveld hoger dan in Hoograven. In Hoograven fietst 29.19% niet, in Boschveld is dit 39.45%. In Hoograven zei een kwart van de respondenten dat fietsen past bij hun manier van leven, in Boschveld was dit slechts 16.5%. Dit duidt er wellicht op dat de fietscultuur in Hoograven sterker is dan die in Boschveld. Maar ook het hogere werkloosheidscijfer in Boschveld kan een deel van de verklaring zijn evenals dat respondenten in Boschveld meer redenen zeggen te hebben om niet te fietsen.

Wanneer de antwoorden van de respondenten uit Boschveld en Hoograven worden samengevoegd maakt dit duidelijk dat respondenten van Nederlandse afkomst inderdaad meer, en over grotere afstanden fietsen dan niet-westerse respondenten. Twee van de drie respondenten van niet-westerse afkomst fietsen niet meer dan vijf kilometer, in tegenstelling tot respondenten van Nederlandse afkomst waarvan maar één op de drie niet meer dan vijf kilometer fietst. Maar belangrijk om te onthouden is dat niet-westerse respondenten wel fietsen. Ook werd gevonden dat hoger opgeleiden meer fietsen dan lager opgeleiden. Maar hoger opgeleiden van niet-westerse afkomst fietsen niet meer dan hen die deelnemen / namen aan een studie op een lager niveau. Dit is een verschil met conclusies uit eerder onderzoek. Belangrijk om te onthouden is dat dit onderzoek uitwijst dat het merendeel van de inwoners van Hoograven en Boschveld met een niet-westerse achtergrond kunnen fietsen, een fiets tot hun beschikking hebben en geen negatieve ideeën hebben ten aanzien van die fiets. Men fietst dan ook, alleen niet zo vaak als de Nederlander, fietsen lijkt voor hen minder normaal. Dit blijkt ook wel uit de verschillen wat betreft afstand en aantal keren die iemand fietst. Uit de antwoorden van de respondenten blijkt dat de Nederlander vaker en over grotere afstanden fietst, dit zijn statistisch significante verschillen met de niet-westerling.

Dit verschil wordt wellicht verklaard door de invloed van de habitus. Pierre Bourdieu omschreef habitus als het product dat strategieën produceert over hoe om te gaan met dagelijkse zaken, het is onderbewust en wordt ingegeven door iemands geschiedenis en sociale structuren waarin men hij zich bevindt. De fiets heeft historisch gezien geen dominante positie in de habitus van de niet-westerling, in het land van afkomst (of dat van hun ouders) wordt simpelweg minder gefietst. De Nederlandse jeugd wordt vaak door hun ouders geleerd om te fietsen waarna ze zelfstandig naar de voetbaltraining of school fietst. Bij niet-

westerlingen is dit anders, zo wijst dit onderzoek ook uit. Zij groeien op in landen waar de fiets als dagelijks vervoersmiddel minder vanzelfsprekend is en wanneer in Nederland behoort die fiets niet direct tot de prioriteiten, hun kinderen leren fietsen is dat ook niet. Want men heeft zich om diverse redenen andere manieren van vervoer eigen gemaakt en is hier vertrouwt mee geraakt.

Om deze verschillen te verkleinen worden de volgende aanbevelingen gedaan. Meer onderzoek moet uitwijzen waarom andere manieren van vervoer comfortabeler en gemakkelijker worden ervaren en wanneer dat comfort gewenst is. Daarbij moet onderzoek worden gedaan naar het succes van de fietslessen, tot op heden is hier weinig over bekend. Tevens zou een test gedaan kunnen worden waarbij een deelnemer zijn / haar eigen fietslessen betaald. Veronderstelt wordt dat dan alleen de echt gemotiveerde student zal deelnemen. Daarbij dienen verbeteringen in infrastructuur moeten worden voortgezet, net als het demotiveren van autogebruik. Want, zo geven veel respondenten aan, door duurdere benzine en hogere parkeerkosten wil men meer gaan fietsen. Last but not least, fietsmarketing moet zich meer richten op de jeugd in plaats van volwassenen (wiens gedrag moeilijk meer te beïnvloeden is). Introduceer en activeer de fiets op een jonge leeftijd zodat de fiets een actieve rol krijgt in de habitus. Niet alleen van kinderen met een Nederlandse achtergrond maar zeker ook bij kinderen met een niet-westerse achtergrond, zodat ook voor hen de fiets een vanzelfsprekendheid wordt en ze niet meer weten hoe het anders moet.

PREFACE

Fascinated by cities, the forces who shape them and our society as a whole I decided to partake in the master specialisation Urban and Cultural Geography at the Radboud Universiteit in Nijmegen. This was in September 2011. One and a half year later I'm about to finish my master thesis and complete my *study career*.

Prior to this moment I did a, to my believe, extensive research on cycling. A phenomenon common and much practiced by myself, but perceived totally different by others. In the Netherlands cycling is perceived as *the right thing* to do, however many people do not cycle. Sometimes forced because of one's health, but sometimes also because cycling is perceived as inappropriate. How is it that something so common in the Netherlands is inappropriate for others? How does this influences our cities? Can and should we change certain believes and actions that consider cycling as not ok? I find these questions both interesting as important and therefore decided to write my master thesis on it.

Thankfully I found *De Fietzersbond* able to accommodate this research. I want to thank them for this opportunity. I also want to thank everyone else who contributed in this research. All respondents to my survey and other collocutors. But I do want to name a view in particular, Loes my sister for her help with SPSS, Henk Hendriks (supervisor *De Fietzersbond*) for his remarks on how to improve and enlarging the research and Prof. dr. Huib Ernste (supervisor Radboud University) for his advice regarding the used methodology, methods of processing my findings and help with the theory.

I hope that every single reader of this thesis get insights in the lessons I learned. Something so common in Dutch society is perceived totally different by newcomers in our country. These different believes and subsequent actions might cause big changes in our cities and they should not be ignored.

Thijs Koolhof

Raalte, January 2013

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Figure 1: Bicycles in Hoograven, Utrecht (own work).

CHAPTER 1. INTRODUCTION

This first chapter will outline the complexity of Dutch cycling and how this is the motive for this research. It will give different percentages of bicycle use around the nation and how these can be explained. It will question whether conclusions done by research on national level are also valid on local level. Also it will question whether conclusions drawn by research done on local level are in its turn valid in other local situations and can be generalised to a higher scale. This introduction will therefore explain the reason to why this research is done. The joint questions lead to a central goal for this research, that focuses on exposing perceptions about the bicycle of non-Western immigrants and their Dutch neighbours in Hoograven, Utrecht and Boschveld in 's-Hertogenbosch the Netherlands.

1.1 FRAMEWORK

The usage of the bicycle as a mode of urban transport is rising worldwide. Often is thought that this is a natural phenomenon that simply occurs and where infrastructure solutions have to be created in order to facilitate the cyclists. Others think that when creating a better infrastructure this will lead to more cyclists. These measures certainly have effect on bicycle use and might influence one's rational considerations to cycle. However people tend to make choices on the basis of emotional arguments as well (Brömmelstroet and Schrijnen, 2010).

This causes that not everybody feels the need to belong to the Dutch cycling culture. A culture that is widely reported about. For instance by the Dutch Ministry of Transport, Public Works and Water Management (nowadays called Ministry of Infrastructure and the Environment) who wrote that "the Netherlands and cycling have been synonymous for years" (Ministry of Transport, Public Works and Water Management, 2009, p. 9). In this report the ministry mentions the Dutch cycling culture and how this can be an example to other countries. As in the Netherlands more cycling kilometres are made than in any other European country. In Denmark, number two of the list, nineteen percent of all movements are done by bicycle. In the Netherlands this is significantly more. Here twenty-six percent of all movements are done by bike and for short distances this is almost half of all movements (Ministry of Infrastructure and the Environment, 2011).

However observed trends may lead to a smaller share in the future as they cause that the use of the bicycle within the country develops differently (CPB & RPB & MNP, 2006). The main trend according to Harms, Jorritsma, Hoen and Van de Riet (2011) is that non-Western immigrants, also "third" generation, cycle less. The opinions differ on what the reasons are to why non-Western immigrants cycle less, it will nevertheless lead to further differences in bicycle use (according to Harms, Jorritsma, Hoen and Van de Riet).

DIFFERENCES IN DUTCH CYCLING

The average Dutchman uses his bicycle 0,82 times per day. There are however big differences between villages, cities and regions. For example the average inhabitant of The Hague uses his bicycle only 0,3 times per day. In contrast to an inhabitant of Veenendaal who cycles 1,34 per day (Ververs & Ziegelaar, 2006). According to De la Bruhèze and Veraart (1999) these differences are the result of infrastructure decisions in the past. They argue that a high number of cyclists can be explained by the lack of public transport and a low number of cyclers can be explained by a pro car-infrastructure. Others (Ververs & Ziegelaar, 2006) claim that there are more factors influencing cycling, they argue that these differences can not only be explained by spatial elements (like the lack of public transport or a pro-car-infrastructure) but also by physical characteristics of the city its inhabitants. In research done by Rosen, Cox and Horton (2007) is stated that

"when thinking about the reasons as to why people do not cycle, we tend to concentrate on hills, rain, fear of traffic and the long and complicated journeys which people nowadays seem to undertake"
(Rosen, Cox & Horton, 2007, p. 14).

Rosen, Cox and Horton criticize the lack of research on the socio-cultural factors that influence bicycle use. That critique is not entirely correct as earlier (mentioned) research done by Ververs and Ziegelaar takes several cultural and social factors in account (2006). For instance the number of voters for the Dutch green political party *GroenLinks*. According to them this results in more cyclists and just like Harms et al. (2011) they claim that a high number of non-Western immigrants results in a lower number of cyclists. Might it be that one's origin is of influence for the choice of transport?

RESEARCH ON CHOICE OF TRANSPORT

According to research done by Harms (2006) the answer is yes. Harms analysed the outcomes of a study done by the *Sociaal Cultureel Planbureau* that researches the living situation of immigrants living in urban areas *Leefsituatie Allochtone Stedelingen*. In this research four groups of non-Western immigrant inhabitants (Turks, Moroccans, Surinamese and Antilleans) of sixty cities in the Netherlands (the *G60*) are questioned about their living situation and behaviour. Harms analysis focused on the mobility patterns of these immigrants. He argues that bicycle usage is negatively influenced by the presence non-Western immigrants (Harms, 2006). He also concludes that they less often own a car and have a driver's license. A quarter of the Turks, a third of the Moroccans and Surinamese and almost half of the Antilleans do not own a car. Of the researched Dutch households fifteen percent does not own a car. Immigrants, and in particular Surinamese and Antilleans, relatively often own a subscription for public transport. Furthermore almost all native Dutch households possess one or more bicycles, against seventy-five percent of immigrant households. Harms explains these differences by claiming that immigrants are less often en route (2006). Which he again explains by the fact that in particular Turkish and Moroccan women often do not go out because of traditional ideas on 'male-female relations'.

Van Boggelen (2006) analysed the outcomes of the LAS research as well. His analysis focused more on cycling. He claims that immigrant teenagers cycle less compared to their native peers (Van Boggelen, 2006). The bicycle usage of Turkish and Moroccan teens is 35% lower and the bicycle usage of Surinamese and Antilleans teens is 25% lower. After reaching eighteen (in 2006 the age where you could participate in driving lessons and students are able to get a "free" public transport card) bicycle usage dropped by 70% amongst Turkish and Moroccan teens, which is considerably higher than (Dutch) average (Van Boggelen, 2006). The decline in bicycle usage of Surinamese and Antilleans teens is roughly comparable to that of native youth.

In his further writings Van Boggelen (2006) claims that there are differences within the cities of the *G60*. He notices that cycling conditions within the *G4* (the big four Dutch cities, Amsterdam, Rotterdam, The Hague and Utrecht) are not encouraging. Busy traffic causes many delays and a subjective feeling of unsafety. In addition there is a rather high chance of theft as many homes lack good storage facilities. Also good public transport and the fact that many destinations are within walking distance makes that people do not regard the bicycle as the best mode of transport. This makes that the average share of bicycle use is about eight percent lower in the *G4* than in other cities. The differences in usage amongst immigrants is however much greater (Van Boggelen, 2006). Bicycle usage among Turkish inhabitants of the *G4* is up to 90% lower than by Turks in other cities. Amongst Moroccans and Surinamese the difference is up to fifty percent. Striking is that bicycle use amongst natives in the *G4* is about the same, sometimes even higher than in other cities.

To ensure coherence between bicycle use of immigrants, quality of infrastructure and competition from other modes of transport, Van Boggelen (2006) combined the data from the LAS research with data from the *Fietsbalans*. The *Fietsbalans* is an analysis done by *De Fietsersbond* where all sorts of data on the infrastructure in one hundred twenty cities is gathered, the *Fietsbalans* therefore concludes its findings per city. The LAS research however cannot conclude its findings per city as responses per city are too low. Therefore the findings of the research are concluded in three categories; cities with a good, average and bad infrastructure.

When infrastructure is improved immigrants tend to cycle more often (Van Boggelen, 2006) however they still cycle less than their native Dutch peers. Other findings (Van Boggelen, 2006) are that measures to make the usage of the car less attractive are less effective with immigrants and quality improvements in public transport will result in a higher decline of immigrant cyclists than native cyclists. In cities with a strong cycling culture (a large number of cyclist) immigrants tend to cycle up to 50% more.

RESEARCH ON LOCAL LEVEL

According to Verhoeven (2009) who did research in the *Schilderswijk* in The Hague, the main reasons not to use the bicycle are bad weather (rain, wind, cold) and a feeling of insecurity in traffic (Verhoeven, 2009). A third reason is that the distance to be bridged makes that the bicycle is not suitable for transport.

Research done in Amsterdam indicates that native and higher educated inhabitants of the city cycle more than non-Western immigrants and lower educated inhabitants of Amsterdam (Hertog, Bronkhorst, Moerman & Wilgenburg, 2006). The reason to why higher educated cycle more is said to be because they perceive the bicycle as suitable for their way of life. They think that the bicycle is “hip en duurzaam” (trendy and sustainable) (Brömmelstroet, 2012a). Another explanation is that non-Western immigrants tend to work at a larger distance from their house (Hertog et al. 2006) and therefore the bicycle does not suit them in their transport needs. However, these differences in bicycle use are also visible for transport within the neighbourhood. What means that both non-Western immigrants as lower educated inhabitants do not use the bicycle for trips from house to the local supermarket, as well as that they do not cycle in their spare time (Hertog et al. 2006).

Van Olden (2012) did research in Amsterdam Nieuw-West, a neighbourhood that houses a large number of non-Western immigrants. It differs from the city centre where most inhabitants are native Dutch and has a strong cycling culture. The research concluded that both first, second and “third” generation non-Western immigrants do not regard cycling as a normal thing to do (Van Olden, 2012). And while the good cycling infrastructure should motivate inhabitants to cycle, usage is low (Rasing, 2012). The research indicated three groups in particular who do not cycle: non-Western immigrant women, teenagers and kids (Van Olden, 2012). The reasons not to cycle differ, for the non-Western immigrant women fear seems to be the reason (Van Olden, 2012) i.e. they do not feel safe in traffic when riding a bicycle. Teens seem not to cycle due to the bad image it has amongst them, especially teenagers of non-Western origin. From the age of ten they start thinking negative about the bicycle as a mode of transport. The bicycle therefore is not used to go from home to school. Non-Western immigrant kids only use it as a toy and their parents do not allow them to use the bicycle as a mode of transport. Kids who know how to cycle are taught this most of the times from friends and family and not like in traditional Dutch families from their parents.

The conclusions from Verhoeven and Hertog & Van Olden are interesting in relation to the current investments in cycling policy. They concentrate on constructing new cycling routes and maintaining a cycle friendly infrastructure (Van Boggelen, 2006). Thought is that people will use the bicycle if this is a safe, fast and comfortable option. Van Boggelen (2006) concludes that this policy works. Especially when it is combined with measures that make car usage less attractive. However these policies presume that, everyone wants to ride a bicycle, knows how to ride a bicycle and also owns a bicycle. You could however question whether this is applicable for non-Western immigrants as cycling seems not to be within their social surroundings. Also teens

might not be attracted to cycle more because of these investments, as literature suggests that they sometimes perceive the bicycle as 'uncool' and therefore make decisions on the basis of emotional arguments.

1.2 CENTRAL GOAL.

That certain social factors influence cycling is not something new. However, in the past there was little attention for this. Maybe that is why in policy little attention went out to non-cyclists, as was assumed that when infrastructure was sufficient everyone would cycle. In recent years this changed. This came also to the attention of *De Fietsersbond* (the Dutch Cyclists' Union). *De Fietsersbond* is committed to campaigning for better cycling conditions in the Netherlands and has more than thirty-five thousand members. With one hundred fifty local branches they work towards: well maintained, smooth and direct cycling routes, more and improved parking spaces for bikes, action against bicycle theft and more safety in traffic for cyclists (Fietsersbond, 2012a). However the union asked itself whether these actions are enough to increase bicycle use among every inhabitant of the Netherlands. This doubt and the research proposal compiled made that *De Fietsersbond* was interested in participating in this research.

This research will therefore question what are the reasons that in Dutch society one cycles less than one another. It will put to the test why and if "the non-Western immigrant" cycles less than his or her Dutch neighbour. To answer these questions, this research will focus on two neighbourhoods in two Dutch cities. The first one, Hoograven, is more or less defined by the Fietsersbond. The second one, Boschveld in 's-Hertogenbosch, is defined on the basis of several criteria which are given later on.

The following research goal is formulated:

The goal of this research is to contribute to more knowledge on how and if one's origin influences the usage of- and the attitudes about the bicycle and whether this can be influenced through policy
by

a research in Hoograven and Boschveld where the use of- and the attitudes about the bicycle by inhabitants of different origin are mapped.

In addition to this first research goal a second research is added (as requested by *De Fietsersbond*). In this research findings from earlier work will be put to the test. Research by Hertog, Bronkhorst, Moerman and Wilgenburg (2006) indicates that higher educated cycle more than lower educated. It is thought (Hendriks, 2012) that higher educated with a non-Western background also cycle more (than lower educated non-Western) because of a peer group effect. Therefore a second goal is added to this research which is:

The second goal of this research is to contribute to more knowledge on whether one of non-Western origin who takes or took part in higher education cycles more than one of non-Western origin who did not take part in higher education

by

a research in Hoograven and Boschveld where the use- of and the attitudes about the bicycle by inhabitants of different level of education are mapped.

DELINEATION

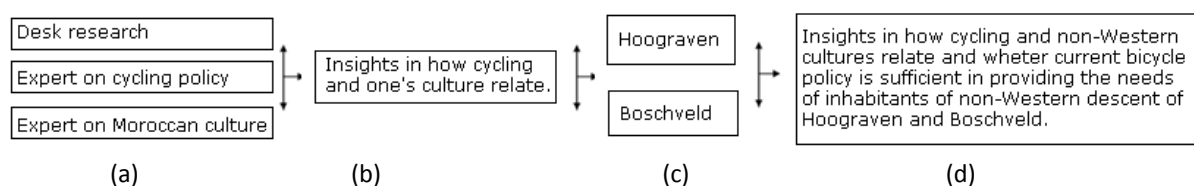
“Als een onderzoeker niet rigourees afbakent, komt hij of zij überhaupt niet tot zinnige uitspraken” (Verschuren & Doorewaard, 2007, p. 139). Verschuren and Doorewaard argue that the delineation of a research should be done in such a way that activities lead to valid and reliable answers to the research question. This research is designed as an exploratory study to the differences between inhabitants of Dutch and non-Western origin in the field of cycling. This to indicate whether current policy can overcome these differences or new policy should be designed. This research therefore focuses on cycling behaviour of inhabitants of Hoograven and Boschveld. Hoograven is a neighbourhood in Utrecht, with 14.731 inhabitants (Utrecht, 2012a). The number of native Dutch is 9812 (66.6%) the number of immigrants is 4919 (33,4%) of whom 3630 (24,6%) of non-Western origin. Boschveld is a neighbourhood in ‘s Hertogenbosch. With 3.167 inhabitants of whom 1797 (56,7%) are of Dutch origin. The number of immigrants is 1370 (43,3%) of whom 1.019 (32%) are of non-Western origin (‘s-Hertogenbosch, 2012). Both are by the city councils for different reasons titled as problematic areas. Both have a high number of inhabitants of non-Western origin.

DEFINITIONS

This research will use the definition of the *Centraal Bureau voor de Statistiek* who defines one as an immigrant when at least one of its parents is born abroad (Centraal Bureau voor de Statistiek, 2000). According to the *Centraal Bureau voor de Statistiek*, Western countries are all countries within Europe (but without Turkey), Northern America, Oceania, Japan and Indone’sia (including the Dutch East Indies). The non-Western countries are therefore Turkey, all countries in Africa, Latin America and Asia (without Japan and Indone’sia). Another term that has an important role in this research is the use of the bicycle. It addresses if the bicycle is used, for what reasons and how often. All to find out whether there are differences. Along with use also the attitude towards the bicycle is examined. What do the inhabitants think about the bicycle? Is it that uncool mode of transport that has negative effects on your image? In regard to the second goal, higher education is defined as studies on *HBO* and *WO* level.

RESEARCH MODEL

The previous results in the following research model (Verschuren & Doorewaard, 2007). The *goal* of this research is to contribute and generate more knowledge in the role of origin on bicycle use in order to do well-founded recommendations for upcoming cycling policy. The *research object* in this research therefore is the bicycle use by inhabitants of Hoograven and Boschveld. The way in which this contribution is provided is by means of a theory testing research. The perceptions of the residents inhabitants make up the research perspective.



Comments.

This model can be explained as follows: (a) Desk research and a literature study combined with interviews experts on cycling policy and Moroccan culture (b) insights how on abstract level bicycle use, is influenced by one's culture and how and if cycling policy can attribute to more bicycle use. These findings are put to the test in (c) Hoograven and Boschveld and should give (d) insights whether the abstract findings and conclusions are also valid on local (neighbourhood) level and how policy might change these attitudes.

1.3 RESEARCH QUESTIONS

The research goal and research model result in the following main question: to what extent are their differences between the bicycle use and perceptions of the bicycle of non-Western immigrants in Hoograven, Boschveld and their Dutch neighbours? To be able to answer this question there are a number of other questions to be asked first. Therefore there are a number of key questions addressed. These are mentioned below as well as the subsequent sub questions and accompanying explanations. The questions that are numbered with Roman numerals are key questions. The one's with lowercase letters are sub questions to the key questions.

Questions

I Do differences exists in bicycle use between native Dutch and non-Western immigrants?

- I. a. What are the differences?
- I. b. How are these differences visible?
- I. c. Are these differences visible on neighbourhood level?

II What causes these differences?

- II. a. Do differences exists in bicycle use that can be attributed to one's cultural background / origin?
- II. b. Do differences exists in bicycle use that can be attributed to one's educational level?
- II. c. Do differences exists in bicycle use that can be attributed to "group behaviour"?
- II. d. Are there other aspects that can cause these differences?

III Can these differences be overcome (by policy)?

- III. a. What are the current investments in cycling policy (on national level and in the two neighbourhoods) to increase bicycle use?
- III. b. Do these investments lead to a higher number of bicycle use by all groups in the neighbourhoods?
- III. c. Should (and if yes how) policy be defined that can attribute to a higher bicycle use by non-Western immigrants?

Explanations

I The answer to this question should indicate whether there are differences in bicycle use between native Dutch and non-Western immigrants.

- I. a. This question should indicate what these differences are.
- I. b. This question should indicate how and if these differences are visible.
- I. c. This question should indicate whether non-Western immigrants cycle less than their Dutch neighbours.

II The answer to this question should indicate whether the possible differences in bicycle use that are obtained in the first question can be attributed to one's cultural background / origin.

- II. a. This question should indicate whether the reason for (not) cycling is influenced by one's cultural background.
- II. b. This question should indicate whether there is a relation to one's educational level and cycling.
- II. c. This question should indicate whether one cycles (or does not) because of group pressure.
- II. d. This question should indicate whether it are different reasons that one does or does not cycles.

III The answer to this question should indicate whether the possible differences that are obtained in the second question are the cause of attitudes towards cycling.

- III. a. This question should give more insights in what is currently done to motivate the Dutch to cycle.
- III. b. This question should indicate whether the investments are successful and attribute to a higher number of cyclers (native Dutch and non-Western immigrants) within the neighbourhood.
- III. c. This question should give insights in how and if there should be policy designed especially for non-Western immigrants as current policy is not sufficient.

1.4 RELEVANCE

Answering these questions will give insights in the factors that influence bicycle use. There are striking differences in the bicycle usage between cities, regions and groups in Dutch society. These can not only be explained by objective factors as hills. Cultural factors might be of decisive importance. In this research notice will go out to the role of culture and origin in bicycle use. It will therefore have relevance to society as well as it has scientific relevance.

According to the literature non-Western immigrants cycle less compared to their Dutch counterparts (Van Boggelen, 2006). Research by Van Olden (2012) in Amsterdam backs these findings and adds that in particular teenagers and women cycle less, as they prefer modes of transport. When these findings are valid for the whole country and teenagers may form attitudes and habits and never change them this might cause problems in the future. Space is limited in the Netherlands, the country is the most densely populated country in Europe and a large part of the inhabitants lives in urban areas. Because of expected demographic trends, the influx of immigrants and 'family dilution', traffic in urban areas will grow, while expansion of infrastructure is a problem in the scarce space. Especially car usage has several negative effects, congestion, air pollution, noise pollution and traffic safety. Cycling is often seen as a solution to these problems as it uses less space and does not damage the environment. And as almost 40% of car use is no more than five kilometres (Van Boggelen, 2006) there is a high potential for decreasing car and increasing bicycle use.

According to Korver and Vanderschuren (1995) social and cultural factors are of great influence on mobility. According to them the grow in mobility is for about 50% explained by social (origin, religion) and demographic factors. Prosperity, car ownership, improvements in infrastructure and developments in spatial surroundings make up the other half. There is however little research done to these social factors. Maybe therefore the current debate in Dutch cycling policy most often puts emphasis on infrastructure projects. These infrastructure projects encourage people to cycle more, but they do not encourage everyone to cycle. When one cannot cycle (because of cultural reasons) it is highly doubtful that he will cycle after infrastructure improvements. Shouldn't they be introduced to cycling first?

As Brömmelstroet and Schrijnen (2010) conclude, people make choices on the basis of emotional arguments. Cultural aspects might be on the basis of these emotions as well as that there might be cultural reasons who make that cycling is not an appropriate way of moving throughout urban areas. Shouldn't these cultural reasons be mapped before money is spend on policy and projects that are not effective to parts of the targeted group? The outcomes of this research should contribute to insights in the cultural attitudes of certain parts of the population towards cycling and be of relevance for both science as society.

This research is also of relevance to *De Fietzersbond*. The Dutch cycling union is determining its position in the debate on cycling related policy and investments and is constantly trying to improve cycling culture in the Netherlands. This research will address the influence of social factors on cycling in order to gain more insights in what factors affect cycling culture. Therefore this research goes beyond general cycling studies who often neglect the influence of social factors on cycling. *De Fietzersbond* will benefit as they gain insights in a (part) of a group (i.e. immigrants) that is underrepresented as member of the union. This research will also be of relevance to *De Fietzersbond* in order to gain more insights in the Hoograven neighbourhood in Utrecht where they are involved in the urban renewal of the neighbourhood.

1.5 OUTLOOK

This first chapter functions as an introduction to the subject, research goals, questions and relevance to society, science and *De Fietzersbond* is explained. The second chapter is the theoretical framework of this study. Here are the theoretical concepts of Pierre Bourdieu introduced as well as is explained how these concepts relate and might benefit this study. The third chapter is on the methodology used in this research. Here is explained what is done, how it is done and with what reason it is done. To indicate what Dutch cycling is about, is in chapter four the Dutch cycling culture introduced and explained what it is. This is done to emphasize the differences with cycling in other countries. It is therefore more or less compared with other cycling cultures and policies, to highlight the differences and emphasize the exceptional position of Dutch cycling. The second part of the chapter focuses on Hoograven and Boschveld, here local cycling culture and policies are described. This is done to indicate if there are differences between the two and the rest of the country. This fourth chapter is more or less input for some of the questions that were asked in the survey. The outcomes of that that survey done among inhabitants of Hoograven and Boschveld is given in chapter five. The last chapter is chapter six, in that chapter is concluded, are recommendations done for future research and is reflected on this research.



Figure 2: A bicycle near the Dom tower, Utrecht (own work).

CHAPTER 2. THEORETICAL FRAMEWORK

The theoretical framework of this study is build upon a number of concepts from the work of French thinker Pierre Bourdieu (1930 – 2002). Bourdieu saw social science in a perspective with other sciences and tried to overcome a series of oppositions which he thought characterized the social sciences. Critics pronounced his works obscure, inconsistent and limited at first (Jenkins, 1992). But in later years Bourdieu appealed very

widely across the social sciences. He inspired work in anthropology, sociology, feminist studies, literature and geography (Silva and Warde, 2010). Bourdieu wrote a *Theory of Practice* in which he tried to overcome the two apparently conflicting principles, objectivism and subjectivism who divide the social sciences by the notion of habitus (Bourdieu, 1985).

2.1 THEORETICAL GROUNDING

Bourdieu his oeuvre became a science of human practices and in that line Bourdieu introduced the concept of habitus. The habitus, that is the product of the embodiment of the objective necessity, produces strategies that are objectively adapted to an objective situation, it is nor the outcome of explicit and conscious objectives pursued, nor the result of a mechanical determination by external causes (Bourdieu, 1985). It is this concept that plays an important role throughout this research. Bourdieu argues that

“the notion of habitus expresses first and foremost the rejection of a whole series of alternatives into which social science has locked itself, that of consciousness and the unconscious” (Bourdieu & Wacquant, 1992a).

Bourdieu sought to bridge subjectivism (simply put the individual) and objectivism (simply put society). He examined the social construction of objective structures with an emphasis on how people perceive and construct their own social world, but without neglecting how perception and construction are constrained by structures.

One of the questions that Bourdieu tried to answer in his work has been concerned with “what motivates human action?” (Hillier & Rooksby, 2002, p.4). How do people react in response to external stimuli? Is the extent to how they act influenced or maybe even determined by structural factors? Bourdieu proposes a structural theory of practice. A theory

“which connects structure and agency in a dialectical relationship between culture, structure and power. Bourdieu recognises the social relations among actors as being structured by, and in turn, contributing to the structuring of, the social relations of power among different positions (of class, gender, etc). It is this theory which forms the basis for Bourdieu’s concept of habitus” (Hillier & Rooksby, 2002, p.4).

According to Calhoun (2000) one of the motivations behind Bourdieu his work is to challenge “misleading dichotomies” (Calhoun, 2000, p. 705). One of these is the opposition of theory and practice in some discourses who argue that practice is the application of theory. In these discourses theory becomes a totalising view rather than being in a relationship with practice. Bourdieu his concept of habitus however takes practice into account and his theory tries to explain these practices.

HABITUS

The term habitus is derived from the Latin verb *Habere* meaning “to have” or “to hold” (Swartz, 2002, p. 61). The concept grows out of Bourdieu his attempt to address the question how human action is regulated. It grows out of Bourdieu his critiques on Lévi-Strauss his structuralism and can be expanded to include all explanations that rely on this form of external determinant of individual action. According to Lévi-Strauss

normative rules specify what actors should do in particular situations. But in practice, people negotiate, bargain, violate these official rules in ways that reflect their interests and desires (Swartz, 2002). Bourdieu (1990) argues that habitus is constituted in practice. He argues that habitus is a product of history, which produces individual and collective practices. He adds that habitus is embodied history, internalized as a second nature and forgotten as history. He defines habitus as:

“a system of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organise practices and representations” (Bourdieu, 1990, p. 53).

What means that habitus is a sense of one’s place and role in one’s lived environment. So habitus is the product of history but also of current practices. It is

“an open system of dispositions that is constantly subjected to experiences, and therefore constantly affected by them in a way that either reinforces or modifies its structures” (Bourdieu & Wacquant, 1992b, p. 133).

Habitus therefore is “reasonably durable, but it is not immutable” (Hillier & Rooksby, 2002, p.5). Habitus makes actors to choose behaviour which appears to be the most suited to achieve a desired outcome. This is done with regard to previous experiences, resources available and power relations. As Bourdieu argues “the relation to what is possible is a relation to power” (Bourdieu, 1990, p. 64). This make seem that actors make a conscious and practical evaluation of their potential behaviour. However one’s practical evaluation is often not a conscious pattern of rational thought.

“Habitus is very similar to what was traditionally called character, but with a very important difference: the habitus, as the Latin indicates, is something non natural, a set of acquired characteristics which are the product of social conditions and which, for that reason, may be totally or partially common to people who have been the product of similar social conditions” (Bourdieu, 2002, p. 29).

It is often an intuitive practical reaction, based on experience (Calhoun, 2000). “Bourdieu regards habitus as an open concept” (Hillier & Rooksby, 2002, p.6) as one’s disposition is constantly subjected to different experiences. The dispositions that comprise habitus may be affected by these. Hillier and Rooksby (2002) argue that the habitus can be reinforced or modified. Habitus therefore “is durable but not eternal” (Bourdieu & Wacquant, 1992b, p.133). But Bourdieu argues “any dimension of habitus is very difficult to change but it may be changed through this process of awareness and of pedagogic effort” (Bourdieu, 2002, p. 29) or as Navarro (2006) states “under unexpected situations or over a long historical period” (Navarro, 2006, p. 16).

FIELDS

Bourdieu terms the socially structured space in which actors play out their engagements with each other, a field. It is a structured social space with its own rules, schemes of domination, legitimate opinions and so on. It is also a space of conflict, of competition where actors struggle to achieve their objectives. It is a space of play within a network of objective relations between positions (Hillier & Rooksby, 2002). Bourdieu employs the example of a game when conveying the sense of activity within a field. To be successful in a game is

“to master in a practical way the future of the game, is to have a sense of the history of the game. While the bad player is off tempo, always too early or too late, the good player is the one who anticipates, who is ahead of the game” (Bourdieu, 1998, p. 80).

Bourdieu is referring to what the field is asking for and knowing how the game is played. This does not strictly apply to for instance the game of football, but for society as well. Knowing how the game is played between different agents in a (cultural) field involves knowledge of the (written and unwritten) rules,

“genres, discourses, forms of capital, values and imperatives which inform and determine agents practices, and which are continuously being transformed by those agents and their practices” (Webb et al., 2006, p. 50).

This knowledge allows one to make sense of that what is happening around them, and to be able to make strategic decisions as to how a field should be negotiated. There are few newcomers to games who have the necessary abilities to play the game successful. Often, insight and sense of a game develop with experience (Hillier & Rooksby, 2002). Players understand what is possible and what is not, about how to work within existing practices in the field and how the rules might be modified. Activities are therefore constructed by both external limits of rules and regulations, as well as one’s internalisations and placing of limits on what they think they can do or what they want to do in circumstances.

CAPITAL

Bourdieu his concept of the field is closely linked with that of capital. Capital is actually the resource that actors take with them to the field, motivated by one’s habitus. So therefore habitus is constructed through, and in turn constructs, capital (Hillier & Rooksby, 2002). It should not (only) be regarded in its usual economic meaning as Bourdieu identifies three types of capital (Hillier & Rooksby, 2002).

Economic capital, immediately and directly convertible into money and may be institutionalized in the forms of property rights or material wealth. Social capital is by Bourdieu and his student Wacquant described as “the sum of resources, actual, or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalised relationships of mutual acquaintance and recognition (Bourdieu and Wacquant, 1992b). In other words the resources and power one obtains through their social networks and connections. It is both enabling and constraining. Cultural capital is the third form of capital described by Bourdieu. “In developing his view of the habitus, Bourdieu emphasised that groups were able to use cultural symbols as marks of distinction” (Field, 2003, p.13). He used the metaphor of cultural capital pointing to the way groups traded on the fact that some types of cultural taste enjoy more status than others. “Cultural capital often relates to prestige and status and includes resources as articulateness, persuasiveness, aesthetic preferences and cultural awareness” (Hillier & Rooksby, 2002, p. 8). Cultural capital is therefore the forms of knowledge, education and skills that a person has and exists in three different states. The first is an embodied state, cultural goods that can be consumed by understanding meaning. This includes music, art professional jargon and also religion. The second is an objectified state, such as books, scientific instruments which require specialised cultural abilities that make possible to use it. Thirdly is an institutionalised form, found in educational and professional credentials.

To summarise: economic capital is in people's bank accounts, cultural capital is inside one's head and acquired by learning. Social capital is acquired by a person's relation to others. These various capitals might not always be substituted for one another, but in combination they may breed new capital. The habitus is actually a mixture of social, cultural and economic capital, but no one of these dispositions has priority in determining the configuration of the others. It (capital) does however "not exist and function except in relation to a field" (Bourdieu and Wacquant, 1992, p. 10).

2.2 IMPLEMENTATION

Habitus takes a variety of different shapes. From "automatic" behaviours such as holding the door, to giving the proper handshake in a particular situation. Habitus is a social thing, as it emerges in social systems, a family, a firm, a neighbourhood or society (Pickel, 2005) and it is this social system that defines the context. The habitus of a social system is reflected in different ways in the personalities and behaviours of the individuals in the system. But habitus is generated by the system (Pickel, 2005). That is to say it emerges from joint activities and interactions of the individuals within the system (not from the characteristics of individual components). Pickel (2005) states that habitus is a key property of a social system. That implies strong structural causation in the matter of habitus, from the properties of the social system to the behaviour of its individual members. Actions of members can therefore not be completely explained in terms of individual behaviour but are the result of the social system(s). So when we apply this to this study, it implies that one does not cycle because of an individual choice but are the result of seeing others in Dutch society cycle. What made that it became more or less a habit. And these habits are emergent properties of these social systems (Pickel, 2005). These are expressed in individual and collective actions and representations by components of the system. In other words: they are system-specific patterns of "behaving, wanting, feeling, thinking, doing and interacting" (Pickel, 2005, p. 9) and (for this research) cycling. Therefore habitus consists a mode of knowledge that does not need consciousness, it is intentionality without intention, a practical control of regularities of the world one is in. By which one is capable to anticipate on the future without knowing what that future is (Bourdieu, 1985).

For this research habitus is considered the mental structure by which one deals with the social world. It must be perceived as an internalized set of schemes by which we act therefore one is normally not consciously aware of habitus. A habitus is acquired as the result of one's position in the social world. Depending on the position, people will have a different habitus. "Bourdieu argues that the habitus both produces and is produced by the social world. People internalize external structures, and they externalize things they have internalized through practices" (Ritzer and Goodman, 2003). Therefore habitus, its values and dispositions, allow us to respond to cultural rules and contexts in several ways, but the responses are always largely determined by where we have been in a culture (Webb et al., 2006). "Agents move through and across different fields, they tend to incorporate into their habitus the values and imperatives of those fields" (Webb et al., 2006, p. 37). Bourdieu his notion of agency is based in a concept of habitus, which itself should be understood as a sort of *sens pratique* (Bourdieu, 1990). What means that one's actions become practices and are actually "pregiven" and not so much a choice. But according to Ajzen (2005) one's attitudes can change depending on new available information. Also Bourdieu argues that one's habitus can change through a

process of awareness and by pedagogic effort. This might be of importance to this study as it indicates that one's habitus can adopt or reject a practice like cycling.

Field is the second of Bourdieu's concepts that has a place in this study. Field is considered as the setting in which agents and their social positions are located. The position of an agent in the field is the result of the interaction within the field, one's habitus and one's capital. It allows one to make sense of what is happening around them. Newcomers to a field often lack the necessary abilities to make sense of the field. These insights and sense of the field develop with experience. One's internalisation (of the rules and regulations in the field) and external limits construct one's activities.

For this research field is considered as the world one is in. It is one of the core concepts used by Bourdieu, but has a smaller role in this research. Important though is to know what fields are and realize that they have a certain power within them that causes certain reactions by the agents. However these reactions are not the same for every agent. The reaction of each particular agent is a result of interaction between the specific rules of the field but most of all the agent's habitus. Basically everyone could respond the same to the field of cycling. As for every inhabitant the cycling facilities are the same. However people make different choices motivated by their habitus.

Bourdieu's third concept that is used in this study is the concept of capital. Bourdieu obviously did not relate cycling with his thoughts about capital. But his thoughts and concepts are interesting in relation to cycling. In this research will be questioned whether an inhabitant of the two neighbourhoods consists the capital, just like a native Dutch inhabitant, to cycle. Does one have a bicycle (economic capital)? Does one recognize a bicycle as an appropriate mode of transport (social capital)? Is one able to ride a bicycle (cultural capital)? Can the dimensions of habitus be changed through processes of awareness and pedagogic effort?



Figure 3: Parked bicycles on the Maartensbrug in Utrecht, the Netherlands (own work)

CHAPTER 3. METHODOLOGY

The goal of this research is to gain more knowledge on the influence of culture and origin on cycling and how policy might help changing the attitudes towards the practice of cycling. Therefore bicycle use and attitudes towards cycling by inhabitants of two neighbourhoods will be researched. In this chapter is explained how answers are to be found and where to be found. First is given what the to be researched population is and how the delineation is done. In paragraph 3.2 is given with what strategy the population is approached. In paragraph 3.3 are the several research questions given and with what method they are to be answered. In

paragraph 3.4 is spoken how the interviews went before in paragraph 3.5 is illustrated how the findings are processed and analysed.

3.1 RESEARCH AREA'S

As written in chapter one this research focuses on gaining more backgrounds on social factors influencing the choice of transport. This is done, also mentioned before, by doing research in two neighbourhoods. Two neighbourhoods because then a more accurate image of thoughts and ideas regarding cycling can be given. In addition the Fietzersbond wants to compare the findings (between the two neighbourhoods) with each other because, first of all as *De Fietzersbond* works on neighbourhood level in stimulating bicycle use. It is therefore interested what possible differences could be. Second is that often is assumed that investments in infrastructure are enough to encourage people to cycle, but is that really the case? Does practice in the two neighbourhoods indicate this? However, neighbourhoods and its inhabitants are never completely comparable and it is therefore not the goal of this research to compare the two neighbourhoods. But some neighbourhoods have some similarities and it is interesting to gain insights in whether the attitude towards the bicycle is the same. The choice of research area's is motivated by several factors. The first research area is defined by the Fietzersbond, the participating organisation in this research. The Fietzersbond appointed Hoograven and its inhabitants as research area because the union wants to gain more insights in the use of the bicycle in this particular neighbourhood because of earlier and ongoing efforts to influence its *cycling culture*. The second research area was chosen because it on the one side consists some similarities with Hoograven and on the other side is different. In a meeting on March 13th 2012 was agreed that the second neighbourhood should be:

- a) A neighbourhood in another city then Amsterdam, Rotterdam, The Hague and Utrecht (the G4). As cycling in these cities, as Van Boggelen (2006) notices, is not always encouraging.
- b) It has to be a neighbourhood outside the *Randstad*. As in the *Randstad* urban density is high, the percentage of native Dutch is low(er) and therefore integration by immigrants is not always a social requirement, but also because of the lack of knowledge available about the bicycle use of non-Western immigrants outside the *Randstad*.
- c) The main represented ethnic group should be "similar" as the group in Hoograven, i.e Moroccan.
- d) The to be studied ethnic group should be of considerable size and be comparable with the percentage of non-Western inhabitants of Hoograven.

With these criteria in mind several cities, or actually neighbourhoods within this city, seems the most suitable this is the city of 's-Hertogenbosch. 's-Hertogenbosch was in 2011 chosen as the cycling capital of the Netherlands (Fietzersbond, 2012a). The jury praised all the efforts done by the city to encourage cycling. The city of Den Bosch did this by improving infrastructure and promoting cycling by a marketing campaign (Fietzersbond, 2012). And that makes that it would be interesting to determine if by these actions also make that non-Western inhabitants of the city cycle more.

De Gestelse Buurt, Aawijk-Noord, De Sprookjesbuurt, De Muziekinstrumentenbuurt, De Edelstenenbuurt, Orthen-West and Boschveld all have more than ten per cent of its inhabitants of Moroccan origin (Centraal Bureau voor de Statistiek, 2012) and would qualify for this research. All are considerably

smaller than Hoograven in Utrecht. The biggest of those seven neighbourhoods is Boschveld where 3045 inhabitants live, 33% of them is of non-Western origin, thirteen per cent of them is of Moroccan origin. Therefore Boschveld will be the neighbourhood of research. The two neighbourhoods have further in common that they both suffer urban problems and in both cases restructuring of the neighbourhoods is seen as a part of the solution.

3.2 RESEARCH STRATEGY AND MATERIAL

Now the research areas are defined, should be defined how answers to the research can be found in these areas. In this section is given in what way this is done. The strategy is defined before the actual research is started and to come to valid answers to the questions only relevant material is used. This relevant material is gathered through both quantitative as qualitative research methods. The research consists out of four parts, a) image making, b) fieldwork, c) data processing and d) conclusions and recommendations. These parts are set by analysing the questions and with help of Verschuren and Doorewaard (2007). Verschuren and Doorewaard claim it is important that when designing the research is thought about where and how answers can be found. Therefore first is defined what the objects of research are. In pure empirical research this could be persons, practice, objects and processes and in more theoretical research also literature is possible. Second question would be to answer what is that these sources should give you. Basically there are two options data i.e. information and knowledge. Then should be defined in what way the information from the objects of research are extracted. There are several ways to do this, questioning, observation, measuring, instruments, content analysis and through a search engine. Every technique is specific for one or more sources and therefore not every technique is used.

A. IMAGE MAKING.

This research starts with a phase where the current situation is explored. That is to say gaining more insights in the:

- a) non-Western immigrant cultures, are there any cultural aspects that motivate one (not) to cycle?
- b) cycling policy, what is current cycling policy on national level about and is this policy effective?
- c) cycling infrastructure, what are the current investments in infrastructure, are they successful for every inhabitant of the country? Answers to these questions are gathered in two ways, first by using documents as data, second is by using verbal data.

Documents as data Documents are “standardized artefacts, in so far as they typically occur in particular formats: as notes, case reports, contracts, drafts, death certificates, remarks, statistics, annual reports, certificates, judgements, letters or expert opinions” (Wolff, 2004, p. 238). For assessing the quality of documents Flick (2009) suggests four criteria. A document has to be authentic (is the evidence genuine and of unquestionable origin), credible (free from error and distortion), representative and meaning (the evidence should be clear and comprehensible). With these criteria in mind gathering data through analyzing documents is

a good method as it can be done in a quick and clear way. According to Flick (2009) analyzing documents as a stand-alone method might give limited information. Therefore an extra form of data gathering is used.

Verbal data The interviews with so-called experts are done because of their involvement with the matter. This type of interviewing is a specific method of semi-structured interviewing. The interview partners are part of this research as they are experts on areas of interest in this research. Or as Deeke (1995) states:

“The answer to the question, who or what are experts, can be very different depending on the issue of the study and the theoretical and analytical approach used in it. [...] We can label those persons as experts who are particularly competent as authorities on a certain matter of facts” (2009, 165).

They might complete findings done in desk research. The respondents are as a private person not interesting for this research.

B. FIELDWORK

This desk research will give a more general picture about bicycle use on national level. After this, fieldwork in Hoograven and Boschveld should give more insights in the actual bicycle use and the perceptions that influence it. Therefore this fieldwork consists out of two parts. To indicate who in Hoograven and Boschveld cycles a more anthropological research method is implemented. On two days in June 2012, between 08.00 and 09.00 am were all passing cyclists inventoried by observing them. The data that this work will produce, gives an indication who cycles (at those times) and will therefore be of use for the second part of the fieldwork. That second part is a survey among inhabitants of Hoograven and Boschveld that should identify the reasons to or not to cycle.

OBSERVATION

Observation is a technique that normally prescribes that the researcher is on location to observe persons, situations, objects or processes whereby often an observation schedule is used (Verschuren & Doorewaard, 2007). Observation comes in two variants, a structured and a “free” variant (Verschuren & Doorewaard, 2007). In the structured variant the possible observational categories are in advance disaggregated and as precise as possible described, what makes it possible to only cross a box at the moment of observation. The free variant only requires a list with points of attention. In this research the structured variant is used. According to Verschuren and Doorewaard (2007) this method has resemblances with a written survey. One difference is that the survey is completed by the research population. In an observation this is done by the observer / researcher.

Limitations Most important limitation of the observation is that with every form of observation there is a chance that the observatory is seen as an intruder, what can affect the quality of the to be collected data (Verschuren & Doorewaard, 2007). There is a chance that one will act different when he knows he is being watched. However in this research this is not expected.

The population The observations will take place in Hoograven and Boschveld. The goal of these observations is to determine who (does not) cycles in both neighbourhoods. It is not sure that the observed people live in the neighbourhoods it will however give insights in who does (not) cycles. Therefore every passant and its way of transport belongs to the research population. This should give insights in who cycles and serve as input for the next phase of the fieldwork.

SURVEY

That next part of the fieldwork is a survey. The survey is the most used variant of quantitative research. A survey is a systematic questioning of a large number of persons by a number of predetermined points. It is a type of research that allows the researcher to gain a broad image of an in time and space extended phenomenon (Verschuren & Doorewaard, 2007). In this research this is bicycle use and attitudes towards the bicycle of inhabitants of both non-Western as native Dutch origin in Hoograven and Boschveld. A survey is not suitable to discover the practices of the individual as it focuses on the practices of the group, the population (Verschuren & Doorewaard, 2007). Therefore the survey is an effective way to gain more insights on the attitudes of the non-Western immigrant and its peer group.

Limitations A limitation of the survey is that it gives little draft of / on / about the research phenomenon (Verschuren & Doorewaard, 2007). Another limitation according to Verschuren and Doorewaard is that a survey requires a lot of knowledge prior to the start of the survey. This last limitation is “tackled” doing desk research combined with some expert interviews.

The population The goal of this research is to give insights in the attitudes and bicycle use of the whole neighbourhood. Therefore the survey will focus on all age groups. This is done as one’s age is of influence the choice of transport. For example teenagers will not be able to choose the car to go to school, therefore bicycle use by teens might be higher than that of adults. To prevent that overrepresentation of certain age groups cause a “false” comparison the population is divided by age.

- Group I: Kids who attend primary school (ranging from the age of four till twelve)
- Group II: Teenagers who attend secondary school (ranging from the age of twelve till seventeen, depending on the educational level).
- Group III: Young adults, attending professional education at several levels (ranging from the age of eighteen till twenty-nine).
- Group IV: Adults, active in the workforce or of working age (ranging from the age of thirty till sixty-six)
- Group V: Seniors, sometimes still active in workforce but most retired (from the age of sixty seven and up).

The division of the survey population has another advantage, as it makes it possible to formulate the findings more specific what might help making better recommendations.

Online survey As an extra method of data collection also an online survey is used, as an online survey is a quick and cheap method to do research. It has however one major disadvantage what makes that this method is not suitable as number one way of doing research. Certain groups within Dutch society tend to be less online: elderly, lower educated and immigrants. The survey questions are enclosed in the appendix of this research plan (in Dutch, as this is the main language the respondents will be questioned in).

C. DATA PROCESSING

This part of the research entails the computing and analysing of the data gathered during the fieldwork. Data will be processed with the help of Statistical Package for the Social Sciences (SPSS), a software program used to calculate the statistical outcomes of social research. Processing the answers in SPSS makes it possible to analyse the given answers, whether there are statistically significant differences between Dutch and non-Western respondents and draw conclusions upon them.

In statistics is with statistical significance meant that a found result (probably) is not a coincidence. Assessing statistical significance starts from the null hypothesis which states that an association or difference found is a coincidence, i.e. that in reality there is no difference or association. By means of a statistical test this hypothesis can be tested. When this value differs significantly from the expected value under the null hypothesis, the null hypothesis can be rejected. The association found or the found difference is then called statistically significant. The statistically significant difference can be found when calculating the findings with Students t-test in SPSS. By means of this t-test can be tested if the null hypothesis (for instance no relationship between cycling and origin) is supported and are equal. If the resulting P-value of the test is less than the critical value of 0.05, the obtained differences are unlikely to have occurred based on random sampling from a population with equal variances. If the P-value of found is less than 0.05, the null hypothesis of equal variances is rejected and is concluded that there is a significant differences. In this research it can indicate if there are statistically significant differences in bicycle use.

By also questioning the participants on personal characteristics it made it possible to indicate the backgrounds of the different respondents. The influence of one or multiple independent variables (personal characteristics) on cycling (dependent variable) can be measured with help of a logistic regression analysis between dichotomous variables be made. The logistic regression is also called a logit model. By making a logit model can be found whether each of a set of independent variables has a unique predictive relationship to a dichotomous (two possibilities) dependent variable. So can for instance be what the effect are of origin and level of education on cycling.

D. CONCLUSIONS AND RECOMMENDATIONS

In this part of the research the computed data will be concluded before recommendations are done. The conclusions and recommendations will be on neighbourhood level and in general.

3.3 QUESTIONS AND APPROACHES

In this section is given where and how for each of the research questions the answer is to be found. First more on the research material and then how and where the answers to the questions can be found.

I (What) are there any differences in bicycle use between native Dutch and non-Western immigrants?

- I. a. What are the differences?
- I. b. How are these differences visible?
- I. c. Are these differences visible on neighbourhood level?

II What causes these differences?

- II. a. Do differences exist in bicycle use that can be attributed to one's cultural background / origin?
- II. b. Do differences exist in bicycle use that can be attributed to one's educational level?
- II. c. Do differences exist in bicycle use that can be attributed to "group behaviour"?
- II. d. Are there other aspects that can cause these differences?

III Can these differences be overcome (by policy)?

- III. a. What are the current investments in cycling policy (on national level and in the two neighbourhoods) to increase bicycle use?
- III. b. Do these investments lead to a higher number of bicycle use by all groups in the neighbourhoods?
- III. c. Should (and if yes how) policy be defined that can attribute to a higher bicycle use by non-Western immigrants?

Question	Source type	Research strategy and disclosure	Source
I			
I. a.	Literature	Data in documents.	Publications by inter alia <i>Fietsberaad</i> .
I. b.	Literature	Data in documents.	Publications by inter alia <i>Fietsberaad</i> .
I. c.	Practice / Persons	Observations.	Observation of movements at a to be defined moment.
II			
II. a.	Persons	Questioning in interview. Questioning by survey.	Expert on Moroccan culture. Answers by the respondents.
II. b.	Persons	Questioning by survey.	Answers by the respondents.
II. c.	Persons	Questioning by survey.	Answers by the respondents.
II. d.	Persons	Questioning in interview. Questioning by survey.	Employee city government. Answers by the respondents.
III			
III. a.	Literature / Person(s)	Data in documents.	Publications by inter alia <i>Fietsberaad</i> .
III. b.	Person(s)	Questioning in interview.	Cycling policy employee city government.
III. c.	Person(s)	Questioning by survey.	Answers by the respondents.

3.4 PROGRESS AND PERCEIVED LIMITATIONS

All previous sections of this thesis were written in advance of the study. This section is however written during and after the actual study. In this section is explained how questioning (by interview and survey) proceeded

and whether it gave sufficient information or additional sources had to be found. Also an explanation on how the interviews and survey deduction proceeded. It therefore gives insights in how the research went, what considerations were made and what limitations occurred.

VERBAL DATA

Respondents were difficult to reach and not always open for face to face contact. Therefore most of the interviews were deducted by e-mail and telephone. This made that of the interviews deducted by telephone no records exists. Of these interviews are the, perceived, most important findings added in the appendix. The face to face interview was recorded and e-mail correspondence is saved digitally. During the contact with the experts, there were possibilities for the experts own experiences / contributions as semi-structured interviews ask. In the following overview the names of the questioned experts.

dr. Martijn de Koning	Researcher at Radboud University Nijmegen, Faculty of Religious Studies.
dr. ir. Youssef Boulaksil	Assistent Professor at Al Akhawayn University Ifrane Morocco.
Angela van der Kloof	Mobility advisor at Mobycon and Landelijk Steunpunt Fiets
Koen van Waes	Traffic planner at municipality of 's-Hertogenbosch
Hanneke van Dillen	Coordinator Brede Bossche Scholen at municipality of 's-Hertogenbosch
Lisette Poldner	Cycling teacher at Landelijk Steunpunt Fiets
Yvonne van Dillen-Baudoin	Cycling teacher at Landelijk Steunpunt Fiets
Aart Jan Voogt	Wijkbureau Utrecht Zuid
Nadoua Dahmane	Jeugdwerker at Portes Zuid, Utrecht.
Janneke vd Klei	Project manager Fietsschool at Fietzersbond
Jos Bierens	<i>Opbouwwerkster</i> at Portes Zuid, Utrecht. Involved with cycling lessons in Hoograven.
Fatma Güven	Department of Mens en Werk, working at municipality of Rijssen Holten.

SURVEY

One of the limitations of doing a survey is that it requires a lot of knowledge before being able to start. Gathering this information took more time than anticipated and because of that the survey was started not until July. Conducting the survey however went beyond expectations. There were doubts concerning the language possible participants would speak. Feared was that the level Dutch was too low to be able to participate, as well as understanding of theirs. Therefore was suggested to translate the questions to Arabic. The survey was however started without doing this and it turned out that it went fine.

What did cause some difficulties was that some women of non-Western origin seemed reluctant to cooperate. Possible because the researcher is a Dutch male and there were cultural limitations who made that the women were reluctant to participate. A female volunteer of *De Fietzersbond* helped out to overcome this barrier.

Problems also occurred when approaching institutions as schools and retirement homes to ask them for help. It was suggested to approach people in places where they are present in groups. This should give large

amounts of data. However of the six schools and two retirement homes that were approached, six answered negative, two did not answer at all. This made that all data had to be gathered on the street. Therefore the survey was deducted in three places, Smaragdplein, Hart van Hoograven in Hoograven, Utrecht and Van Coehoornplein in Boschveld, 's-Hertogenbosch. It are places near shops that serve the neighbourhood and are predominately visited by the neighbourhoods inhabitants. However to make sure the possible participant was an inhabitant of either Hoograven or Boschveld, the first question was if he / she lives in the relevant neighbourhood. The questionnaire was deducted orally. Possible answers were not visible for the respondents but when someone could not answer a question possible answers were shown. The questionnaire was changed two times as it turned out that it missed two often named possible answers. The survey lasted from three till ten minutes, it was deducted in the July 2012 and a total of 286 people participated.

- Boschveld: Van Coehoornplein on 5 July 19 respondents, on 10 July 11 respondents, on 11 July 10 respondents, on 12 July 21 respondents, on 13 July 36 respondents and on 16 July 12 respondents.
- Hoograven: Hart van Hoograven on 19 July 9 respondents, Smaragdplein on 20 July 22 respondents, Smaragdplein on 25 July 41 respondents, Smaragdplein on 26 July 32 respondents, Hart van Hoograven on 27 July 8 respondents, Smaragdplein on 27 July 21 respondents and Smaragdplein 27 July 21 respondents (questioning by volunteer of *De Fietsersbond*).

Prior to the study there were doubts regarding the public's participation what could result in little response. Therefore besides conducting the survey on the street the survey was also digital available. This was promoted by, current popular social media, Facebook and Twitter. However the response was low and the questionnaire's that were filled out were incomplete or filled in wrong. This made that none of the filled in questionnaires are processed in the conclusions.



Figure 4: Bicycles in Hoograven (own work).

CHAPTER 4. CYCLING

As stated in chapter one cycling is a habit with its own history. That the Dutch cycle as much as they do and inhabitants of other countries cycle less is because of different reasons. In this chapter is described why this is and how the Netherlands now has a cycling culture. There are however regional differences that might also exist between Hoograven and Boschveld. These might be explained by the local situations described in the second part of this chapter.

4.1 CYCLING CULTURE

Cycling culture refers to the culture that supports the use of bicycles for daily transport in both policy as society. In this research the term cycling culture is used. This seems to be the most suitable translation for the Dutch term *fietscultuur*. In other research sometimes the term bicycle culture is used but meant is the same, a culture that supports the use of the bicycle for daily transport in both policy and society (Van Oijen, Pelzer and Graumans, 2011). The (current) climate in the Netherlands supports this culture as “the Netherlands and cycling have been synonymous for years” (Ministry of Transport, Public Works and Water Management, 2009, p. 9). Despite the increasing distances covered by the Dutch, the bicycle has retained its popularity and anno 2012 the country has a well-developed cycling infrastructure, including segregated bike lanes and extensive facilities for urban cyclers. There are more countries in the world where cycling is popular among large numbers of its inhabitants. In close proximity of the Netherlands it are country’s like Denmark and Germany where cycling is accepted as a normal way of transport. A bit further away it are countries in Asia where the bicycle is a popular mode of transport. However nowhere in the world there is a single country with such a high standard of living where is cycled so much as in the Netherlands. But why is that?

It is of relevance for this study to indicate this typical Dutch cycling culture as a recent study shows that perceptions and attitudes are important in explaining bicycle use (Heinen, 2010). Better understanding of this cultural constellation will provide tools to make sense of one’s attitudes and perceptions (towards the bicycle). To understand cycling culture is actually to understand culture. As Dutch cycling culture is a result of the relation between practice and the context in which it occurs.

4.1.1 DUTCH CYCLING CULTURE

Cycling is at the heart of Dutch culture and society (Dutch Cycling Embassy, 2012). Despite, or maybe thanks to, the economic bad times the Dutch spend nearly one billion euro’s a year on (new) bicycles. In 2011 there were around 1.1 million bicycles sold with an average price around €960 (Rijwiel en Automobielen Industrie, 2012). These sold bicycles come on top of the already high number of bicycles throughout the nation. The Dutch own about nineteen million useable bikes, what makes that the Netherlands now has more bicycles than the country has inhabitants (Stichting Landelijk Fietsplatform, 2009). This makes them world champion of bicycle density (Fietsberaad, 2012a). With these nineteen million bikes the Dutch travel around fifteen billion kilometres per year and on average one cycles about 900 kilometres per year.

FACTS AND FIGURES

Research done by the *Centraal Bureau voor de Statistiek* in 2007 indicated that almost everybody seems to cycle, young and old, man and women, poor or rich, car owner or one without a car. However on average women cycle more than men and native Dutch more than immigrants.

The same research also indicated that cycling is done throughout the year however in spring and summer it is done more often. On an average working day about five million people use the bicycle for about fourteen million trips. On Monday and Thursday this are fifteen million trips. During the weekend this is less; 11,5 million trips on Saturday and 6,5 million trips on Sunday. Busiest hour on the Dutch bicycle paths is between 08.00 and 09.00 at morning when about 1.75 million trips are made. During that hour there are more bicycles than cars en route (Centraal Bureau voor de Statistiek, 2007). Most of these trips are made within the

borders of cities and villages. The average bicycle ride is about three kilometres in length and takes up to a quarter of an hour. Between one and four kilometres the bicycle is the most used mode of transport. For movements up till twenty kilometre the bicycle is more used than train and bus. The bicycle is most used for daily purposes going to school, work, supermarket or friends. Use for recreation and sports is considerably lower.

Several studies show that moving (i.e. doing sports) is healthy. The Dutch perceive cycling as a good way to combine moving and staying healthy. Cycling is not only perceived as healthy but save as well. In the Netherlands the chances of a cyclist to get involved in a serious crash is the lowest in the world. According to Fietsberaad (2012b) this is because of two main reasons, the number of cyclists and the good bicycle infrastructure.

According to *De Fietsersbond* (2012a) the Netherlands has about 35.000 kilometre of bicycle paths and 4700 kilometre roads with bicycle lanes. Most bicycle paths are located in the province of Noord Brabant and Gelderland. But this is mainly due to the size of the provinces. When corrected for the surface, most cycling paths are located in the three suburban provinces, Noord Holland, Zuid Holland and Utrecht. In these provinces also bicycle use is high and it is considerably busier on the bicycle path, with about 35 till 60% more users per kilometre bicycle path (than the Dutch average).

This gathering of facts and figures shows that the bicycle is truly part of the Dutch their daily routines and habits. And Giselinde Kuipers seems to be right when she stated “je neemt gewoon de fiets. Iedereen fietst. Je zou niet weten hoe het anders moet” (Kuipers, 2010, p. 8). In English that would be something like: you just take the bicycle. Everyone cycles. You wouldn’t know what to do without it.

DUTCH CYCLING HISTORY

Why the Dutch are so cycling minded is long debated. The high number of cyclists is not something of recent years, but has its own history (De la Bruheze and Veraart, 1999). Already in the 1920’s bicycle use in the Netherlands was at a high level and remained high until halfway the sixties. For instance in Amsterdam where in 1960 65% of all movements was done by moped and bicycle. In that period (1920-1960) the bicycle was called *de motor van de samenleving* (Ploeger, 1990) society’s engine. After that period the bicycle lost terrain to the car. It did however not disappear (as in other countries) and in seventies the use of the bicycle increased again. However not in every part of the Netherlands, as in the utmost south of the country bicycle use remained lower than in the rest of the country.

It is said that this is because of morphological reasons (Katteler, 1993) as the southern part of the Netherlands is more hilly than the rest of the country. This is also an explanation to why cycling levels in for example Switzerland are much lower. This explanation however does not explain why cycling levels in countries with a comparable morphological pattern (parts of Germany, Flanders and England) are lower than Dutch cycling levels (De la Bruheze and Veraart, 1999). A second explanation to why the Dutch cycle so much is said to be the absence of good and cheap public transport (Bierman, 1982). Thought is that the absence of such a system makes that one has to cycle as there are no other options. This does however not explain why in the bigger Dutch cities (with all extensive public transport network) is cycled more than in comparable European cities. The third line of thought claims that it is the urban structure of the Dutch cities that make that the Dutch use their bicycles so much (De la Bruheze and Veraart, 1999).

According to De la Bruheze and Veraart (1999) the above mentioned explanations are part of the explanation. They claim that policy is the crucial factor. Amsterdam has a cycling culture because the city always tried to be a *compacte stad* i.e. a city with a high urban density. And it is said that the decline of cycling movements in Amsterdam was not that high because residential and working areas were in close proximity of each other. Also the city does not consist a good car infrastructure because of its wish to maintain its (urban) cultural heritage. That policy can also cause that cycling is less done is proved in Limburg. Until the fifties this part of the country did not have an aberrant level of bicycle use with the rest of the Netherlands. But the drop in bicycle use in the sixties was deeper than in the rest of the country. According to De la Bruheze and Veraart (1999) because one had an extra reason not to choose for the bicycle; the hilly terrain. The decline in cycling then continued because of a pro-car policy. This made that the bicycle now has little social support and cycling policy is little ambitious. Kuipers (2010) then adds how the world becomes more and more man-made where many things stop at the border. Language, signage, stores, the colours of the train, television, telephone networks and bicycle paths (Kuipers, 2010). All things that are embedded in institutions as government, education or retail conglomerate. National institutions of whom their legitimacy stops at the border with Belgium, Germany and France (on Saint Martin). But Kuipers (2010) argues that there are also things that stop at the border without direct intervention of governments or corporations. In the Netherlands you'll find endless rows and stacks of bicycles. But as soon as you cross the border and visit places as Antwerp and Aachen you will not find them anymore. This is not a by governments or businesses imposed regime. Kuipers (2010) argues how the bicycle as a daily mode of transport, not only for students or environmentally conscious types, but also for men in suits, Ministers and even the Queen is anchored in the habitus. She claims that it is not because of a by governments imposed regime or because of morphological and infrastructure reasons the Dutch cycle. She argues that it is anchored in the Dutch habitus by sociological reasons. There are more researchers who argue this. As for instance Pelzer (2010) who argues that the Calvinistic ethos is part of the reason to why the Dutch cycle so much. The Calvinistic ethos stands for values as *degelijkheid* (solidity) and *spaarzaamheid* (thrift). Pelzer sees the Calvinistic ethos as the cause for the higher levels of cycling in places with a protestant-Christian tradition than in the places with a catholic tradition. According to Pelzer (2010) these protestant-Christian values make that the faithful cycle more, what again motivates their social environment to cycle. The Calvinist thinking in Dutch society make that the Dutch are open towards cycling.

DIFFERENCES

Kuipers (2010) argues that the bicycle became one with the Dutch, what is visible when looking to the ease the Dutch manoeuvre through busy traffic. That this is not common you see when you watch tourists and their rental bicycles in Amsterdam. It is sometimes also visible when seeing immigrants, living in the Netherlands, cycle. Because cycling is that popular in The Netherlands it is no surprise that immigrants, just like the tourists, cycle less than the Dutch (Van der Kloof, 2011). Quite simply said, they all originate from countries where cycling is less normal and therefore less often within the habitus. As addressed before there might be several reasons as to why this is.

In many other countries the bicycle only has a recreational role (Kickert, 2012). As a toy for kids, enthusiasts or daredevils. Therefore "outside the Netherlands (particularly in the English-speaking world) 'cycling culture' is generally defined by its minority status: within the whole transportation and lifestyle

spectrum” (Van Woudenberg, 2011). It is either marginalized by society or just not prioritized by politicians. Non-Dutch cycling is therefore rarely “for everyone” (Van Woudenberg, 2011). And Beijing may have nine million bicycles, Amsterdam has the reputation of being the bicycle capital of the world. According to Van Woudenberg this title truly belongs to Amsterdam as there is no place in the world of everyday cycling that comes close to Amsterdam. Kickert (2012) argues that the basis for popularity of the bicycle in Amsterdam is the symbiosis between the urban morphology and infrastructure that combines these functions. Kickert (2012) adds that a good functioning city has a strong relation between on the one hand urban density and mixed use and on the other the infrastructure that combines these functions. The high density and mixed functions in Dutch cities makes cycling enjoyable. Other cities around the globe are suffocated in a car helix (Kickert, 2012). A grow in car infrastructure with growing distances between working, living and shopping functions make that the car is a necessity in certain cities.

4.1.2 WESTERN CYCLING CULTURES

Despite advantages that the bicycle may offer, it is in many (European) countries seldom used for daily transport (Martino, Maffii and Raganato, 2010) and therefore the modal share of bicycle traffic in most European cities is rather low. This is partly the result of inadequate policies to promote mobility by bicycle in urban space. But also history is to blame. As just like in the southern part of Limburg, the Netherlands, a pro-car infrastructure and policy in the past seems to be the reason that some cities do not have a cycling culture.

In for example Antwerp, where they had cycling numbers compared to Dutch cities, they did not overcome the decline in bicycle use. Simply because of a pro-car policy (De la Bruheze and Veraart, 1999). In Manchester cycling never reached high levels. Most probably because of early suburbanisation. After the Second World War the city invested in a car infrastructure and that caused that the little used bicycle lost more terrain. On top of that came a negative image of a poor men’s vehicle. Recent efforts to change that did not succeed as cycling was already a non-item for Manchester its inhabitants. Besides the Netherlands cycling in Europe is mostly done in Denmark, Germany and Belgium. (Fietsberaad, 2009).

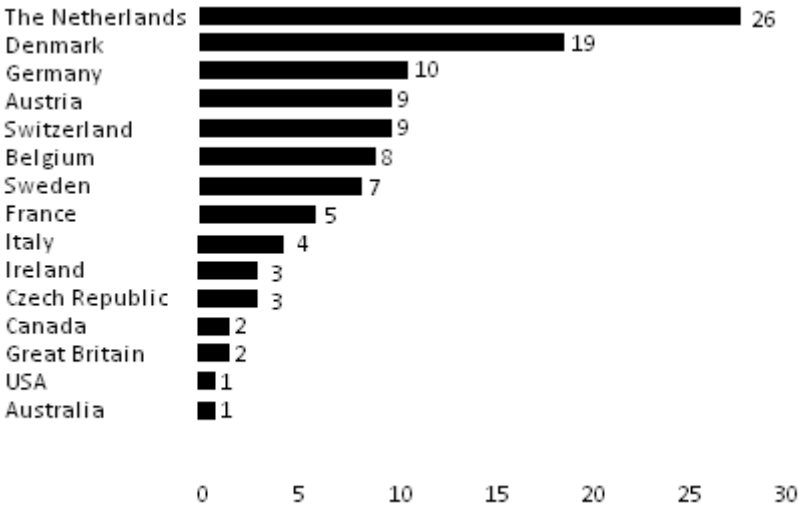


Chart 1: Cycling shares of all traffic movements in the West (Martino et al, 2010, p. 26).

In Danish cities the use of the bicycle is around twenty per cent. Odense and Copenhagen have higher amounts of 26 and 32%. In Germany about ten per cent of the movements is done by bicycle. In the western part of the country this is higher than in the east. In cities like Münster and Freiburg the share is between twenty and

thirty per cent. Berlin has an usage share of ten per cent. Belgium has an average share of eight per cent. In Flanders the use is higher than in Wallonia. The city of Bruges has the highest amount of cyclists a little bit above fifteen per cent. In other parts of the Western world cycling levels are lower. The United States of America are for instance a car orientated country where 84% of all movements are done by car, against 45% in the Netherlands (Voerknecht, 2009). The use of the bicycle is less common but governments try to overcome this. For instance by promoting cycling as a method to combat overweight. Portland is the cycling capital of the United States with a share of six per cent. Compared with European countries, the United States, Canada and Australia are at the bottom of the list. The modal share of cycling in these countries is very low, cycling is only done by some fanatics and it is not recognized as a proper way of movement by the general public. It might not be recognized by the habitus and the "choice" for the bicycle is not open as society does not recognize it.

Governments do try to change this by looking at some European best practices (Martino et al, 2010). Up till now they however have little success in changing this as even in the most bicycle friendly cities in North America (i.e. Vancouver, Victoria, Portland and Seattle) the share of bicycle traffic is smaller than in the least bicycle friendly cities in the Germany or Denmark (Pucher and Buehler, 2008). According to Martino, Maffii and Raganato (2010) topographical conditions and climate play an role, but are not necessarily decisive for the popularity of the bicycle. They consider the government's role in transport, spatial planning, urban development, housing, environmental rules, taxes and parking equally important. In North America and Australia as well the use of private cars is widely supported. Almost without regard to social and environmental impacts. This in contrast to Dutch, German and Danish cities according to Martino et al. (2010). Where in order to obtain a more liveable and durable city, governments try to limit the use of the car by making cities more bicycle friendly instead of car friendly.

To make a city more bicycle friendly various policies used. According to Martino, Maffii and Raganato (2010) most important instruments used are: (improving of) road infrastructure, (improving of) facilities and services for cyclists, (improving of) intermodality for long distance travels where cycling is combined with public transport, (increasing of) safety of cyclists and security and theft prevention. In 1999 the European Commission published a manual for improving urban cycling titled "Cycling: the way ahead for towns and cities" (Martino et al, 2010, p. 28). This manual is intended to promote bicycle use within the European cities and reduce polluting emissions from motorized traffic. Most of the European nations do have national cycling policies but in many countries bicycle policies get little attention at national level and are passed on to regional and local level. Martino, Maffii and Raganato (2010) conclude that there are many methods to improve the number of cyclists. Some of them have to be implemented on national level others on local level. They conclude that in cities who constructed a bicycle friendly infrastructure safety of the cyclists was improved by measures like giving priority to cyclists in urban areas by reducing travel times and distances for cyclists proved to attract more cyclists. Particularly in those cities where no traditional cycling culture or interest in cycling exists. The Italian researchers praise the effects of measures that are meant to change one's attitude like, opening one way streets for car traffic, allowing bicycle transit in bus lanes, reducing speed limit of cars to 30 km/h, allowing right-hand turns at red traffic lights for cyclists and opening bicycle paths. Bourdieu argued that one his habitus might change through a process of awareness and by pedagogic effort. The efforts described before might be a sort of pedagogic effort, but in this case this effort is not made by the parent but by the government. Who is trying to influence the inhabitants to choose differently by means of changing infrastructure.

4.1.3 NON-WESTERN CYCLING CULTURES

In the Netherlands cycling is regarded as a normal thing to do and throughout the world there are more place where cycling is normal. In close proximity for instance Germany and Denmark. But also further away in Asia, cycling is perceived a normal thing to do and Lowe (1989) concluded that up till then bicycles alone transported more people than all the cars in the world do. This has in the first place an economic reason but also government policies are part of the explanation. In for instance China authorities recognized decades ago that human powered transport could move people more and cheaply than any other option (Lowe, 1989). Throughout the country, city governments have long used bicycles to relieve pressure on buses by “paying commuters a monthly allowance for cycling to work” (Lowe, 1989, p. 33). Also in Japan the bicycle has a reasonable position in urban traffic (Tiemens, 2010). The average bicycle ownership is 0,54 per person against 1,1 in the Netherlands and 0,5 in Belgium. Cycling in Japan is popular for both practical as well as recreational reasons. Based on the little findings above one could argue that cycling is within the habitus of the Japanese and Chinese as it is recognized by society as a normal thing to do. But other countries and cultures have different opinions regarding the bicycle. The different opinions regarding the bicycle influence bicycle use in the Netherlands, as when coming to this country the practice of cycling is not directly practiced.

NON-WESTERNS IN THE NETHERLANDS

According to the *Centraal Bureau voor de Statistiek* (2000) the Netherlands has 3.494.193 inhabitants of non-Dutch origin. Biggest groups are Indone’sian Dutch, Turks, Surinamese, Moroccans and Antilleans. These last four are all considered as non-Western immigrants (Centraal Bureau voor de Statistiek, 2000). All originate from countries where cycling is (for different reasons) less common for daily transport and has a different place within the habitus.

Boulaksil (2011) claims that the differences in bicycle use between the Netherlands and Morocco might be explained by the many hills and mountains throughout the African country as there are little areas in Morocco that are flat. Marrakesh is one of the places that is relatively flat and in this city the bicycle is a popular mode of transport. Dangerous traffic and infrastructure is a second reason why cycling is not particularly popular in Morocco. The third reason according to Boulaksil (2012) is culture. Moroccans want to excel and if possible be seen in an expensive car. The car is therefore seen as a mode of transport with status, the bicycle however is seen as a mode of transport for poor people, one who cannot afford a car. Also De Koning (2012) believes that culture might be an explanation for the differences in bicycle use. Some perceive the bicycle as a mode of transport for the poor and are therefore ashamed to cycle. But maybe more important it are traditional attitudes on male and female relations that cause differences in cycling. These attitudes make that Moroccan women do not often go out, and when going out they are not allowed to cycle (Bierens, 2012). De Koning (2012) argues some believe that it is not appropriate for women to cycle. But according to De Koning this is something that is believed and thought predominately across the border i.e. when leaving the Netherlands. In countries as Germany, Belgium and of course Morocco there are movements within the Moroccan (orthodox) culture who believe that cycling is not something for women. According to De Koning (2012) the Netherlands is an exception. Orthodox Moroccan (i.e. Dutch of Moroccan origin) do think that a woman should not cycle, however they do cycle. But the older (i.e. first) generations do not cycle, or at least cycle less. This is still mainly due to unfamiliarity with cycling, it is not integrated and still did not gained a place

in the habitus. It is not just part of the “automatic” behaviour and done without thinking. According to De Koning (2012) older generations are still surprised to see the Dutch using their bikes for everything. Bourdieu is in this case right when he argues that the “habitus is very difficult to change” (Bourdieu, 2002, p. 29). Although cycling is not much done in Morocco it is said that in Turkey it is even less done. As Turkish culture is equal to non-cycling. In Turkey in particular women do not cycle and when coming to the Netherlands they do not directly feel the need to understand how to cycle (Bierens, 2012). As Traditional roles are also practiced in their new habitat. Besides cultural factors also the morphology in Turkey seems not to encourage cycling. Although some Turkish cities do have a flat terrain, are open for changes and cycling use was high in the past cycling is not much done as it is considered dangerous (Interface for Cycling Expertise, 2010). In addition Naimmotlagh (2012) claims that the bicycle is seen as a poor man’s vehicle in his land of origin. The refugee of Iranian origin claims that in his place of birth, Tehran, the bicycle is perceived as a mode of transport for the poor. He adds that this is perceived differently by the Iranians in the Netherlands. It might be because of these reasons that when in the Netherlands the Turks, Moroccans and others do not cycle (as much as the Dutch) as indicated in the first chapter.

4.1.4 CONCLUSION

The previous sections made clear that Dutch cycling differs from that of the rest of the world. In the Netherlands even the Prime Minister and Queen cycle what makes it a mode of transport for everyone. It is therefore safe to say that cycling is truly part of the Dutch culture and Dutch habitus. This has different reasons as indicated in this chapter. It is also safe to say that in every other country around the world cycling is perceived less normal. It seems a combination of hilly terrains, low urban density and cultures who regard cycling as not appropriate for women or only suitable for the poor who makes that cycling is less done in for instance Morocco and Turkey. But also Western countries like the United States. The symbiosis between urban morphology, transport networks, and culture results in many cyclists in the Netherlands. Will implementing Dutch bicycle practice work for other countries? Dutch governments and commercial parties sometimes think so. They should however not forget that the bicycle has a different position within the habitus of people in other countries around the globe. The Netherlands experiences this everyday by the lagging bicycle use of immigrants.

4.2 CYCLING IN THE NETHERLANDS

The last section focused on cycling cultures, this section will focus on the actual cycling behaviour. It touches diverse subjects that all are related to cycling, who cycles and who doesn’t, how does Dutch cycling policy look like and what Dutch cycling culture is about.

4.2.1 DUTCH CYCLING

Van Boggelen (2006) claims that cycling is strongly rooted in Dutch culture and the bicycle is used for more than a quarter of all journeys. For distances up to seven and a half kilometre the bike is the most popular mode of transport. In other countries the bicycle is often solely restricted to children as a toy or sometimes en route to school. In the Netherlands cycling is popular throughout society and also for shopping and travelling

purposes. However within the country differences in cycling exist. As mentioned is the bike on average used for twenty-six percent of all the journeys, but in for instance the city of Groningen almost half of all the trips are done by bicycle (Verkeersnet, 2012). Unlike other cities, such as Rotterdam and Heerlen, where the use is about fifty percent below the national average. The high amount of cycling movements in some Dutch towns cannot be equalled anywhere in the Western world.

The *Mobiliteitsbalans* (Dutch research on mobility) indicated that bicycle traffic grew with thirteen percent since 2000 (Kennisinstituut voor Mobiliteitsbeleid, 2011). In general men are more likely to move by car than women, cycling and walking is more often done by women. Till the age of twenty-five people prefer the bicycle for short distances. They, however, cycle less than their peers in the eighties, most important reasons is the introduction of the public transport card in the nineties (Kennisinstituut voor Mobiliteitsbeleid, 2011). After reaching fifty people tend to walk more as Chart 2 (Kennisinstituut voor Mobiliteitsbeleid, 2011, p. 108) indicates. The *Mobiliteitsbalans* indicates that when one's income increases the use of the car for short distances grows. Up till an income of 22.000 euro's the car and the bicycle have equal usage shares. The *Mobiliteitsbalans* also indicates that immigrants living in the Netherlands cycle less. Quantitative research shows that the use of the bicycle by non-Western immigrants is considerably lower than average. Why is it that non-Western immigrants choose other modes of transport?

	0-11	12-17	18-24	25-34	35-49	50-65	65+
Car driver	0%	0%	16%	31%	36%	31%	26%
Car passenger	32%	13%	10%	7%	6%	7%	9%
Train	0%	0%	1%	0%	0%	0%	0%
Bus/Tram/Subway	0%	2%	6%	1%	1%	1%	2%
Moped	0%	3%	2%	1%	1%	1%	0%
Bicycle	33%	66%	46%	32%	32%	32%	27%
Walking	33%	15%	18%	27%	23%	28%	33%
Other	1%	1%	1%	0%	1%	1%	3%

Chart 2: Short-distance movements by age and transport mode.

The reason for choosing a certain mode of transport is generally determined by costs, availability of transport, time constraints, situational circumstances (weather, carrying of luggage), personal characteristics (age, income) lifestyle, physical environment, perceptions and also habits (Kennisinstituut voor Mobiliteitsbeleid, 2011). The car is often used for short trips not because it is necessary but simply as it is available. Because of a stronger sense of standards as environment and safety women are more willing to use other forms of transport than the car (Adviesdienst Verkeer en Vervoer, 2006). The major factor determining the use of the car for short distances is the motive of the movement. According to Mackett and Robertson (2000) this factor largely explains the differences between men and women, young and old, but also the differences over the day. In households with small children the use of the car for short distances is above average, because of a need for social and traffic security. People that choose the car for short distance trips tend to do this because of a need for comfort. Also a (perceived) lack of time and "chain movements" play their part in the choice of transport (AVV, 2006). People that like to cycle, perceive the car as utensil and only use it in circumstances that the bicycle is no option. For example when they have to move a lot of baggage, groceries, multiple people or when the bike ride is perceived as dangerous (Kennisinstituut voor Mobiliteitsbeleid, 2011). Health and environment are the most important considerations for them to prefer the bicycle. People who use the bike for short distances mostly live in urbanized areas (AVV, 2006). At a higher urban density people travel less (in distance). That results in a lower use of the car and more movements on foot, bike or public transport. According to

Snellen, Hilbers and Hendriks (2010) the reason is the proximity of facilities, but also the unattractiveness of the car.

The variation in mobility between highly urbanized areas and less urbanized areas is explained by differences in income, household size and car ownership (Bouwman and Voogd, 2005). Snellen, Hilbers and Ritsema van Eck (2005) concluded that mobility of residents of new housing is closely linked to characteristics such as education and employment and less with area characteristics. Attitudes are also of influence, people are not primarily influenced by their neighbourhood, but choose a neighbourhood that suits their travel preferences. Spatial characteristics indeed influence the travel behaviour of people, but personal characteristics and attitudes are more dominant.

These characteristics, both spatial and personal, influence one's cycling behaviour. As mentioned earlier it is therefore not surprising that within the Netherlands there are differences in bicycle use and also within cities some groups cycle less often than others. Already in 1995 research from MuConsult showed that Turkish and Surinamese less often own and are able to ride a bicycle than native Dutch. This did not really change as Harms found in 2006. From every immigrant household a quarter does not own a bicycle. Instead of native Dutch households, that most often do own one or more bicycles. After taking into account social background and spatial characteristics of immigrants and natives these differences still exist. Especially young immigrants are not cycling minded (Onderzoek en Statistiek, 2004). Of native Dutch (between the age of twelve and twenty-five) 48% cycles at least one's a month, instead of 39% of their Moroccan and 43% of the Turkish peers. Also the attitudes towards the bicycle differ (Chart 3).

	Turks	Moroccans	Surinamese	native Dutch
Cycling suits my way of life	39	31	34	75
Cycling is only done in good weather	43	43	59	23
I now many people who cycle	35	31	24	84

Chart 3: Attitudes of youngsters from 12 till 25 towards cycling (Onderzoek en Statistiek, 2004).

According to Vogels (2002) immigrant youngsters tend to choose public transport or walk when going to school, native Dutch tend to choose the bicycle. In the G4, where many immigrants live and public transport is good, the differences are even higher. Immigrant youngsters use public transport three times more than native Dutch and bicycle use is almost four times as low.

Another argument is that immigrants are less mobile than native Dutch, therefore not only bicycle ownership and use is lower but also car ownership and usage is below Dutch average. Especially Turkish and Moroccan women make fewer trips and their average distance travelled is shorter. This might be because of the social economic situation, traditional male/female relations, unemployed or incapacitated.

4.2.2 CYCLING POLICY

Cycling is so common in the Netherlands that we hardly are aware of the consequences it has on our land, culture and cities (Van den Boomen, 2012). In for instance Amsterdam bicycle use grew from 39 to 62% since 1990. This was at the expense of car and tram use. This had and has positive effects but slowly also negative effects become visible as cities are clogged by the growing number of bicycles. Now the cyclists displace the pedestrians like the car displaced the cyclists in the seventies and eighties. However altogether the bicycle (and use) is still seen as a bliss. Therefore traffic planners throughout the country engage in intervening in

infrastructure and spatial planning to accommodate the cyclist (and other road users). Accommodating these cyclists is paid by Dutch governments, on all layers and total around €487.000.000 per year (Atsma, 2008). Most of this amount (€410.000.000) are direct spending on for instance cycling infrastructure, the remaining amount (€77.000.000) are tax spending on for instance *fiets privéplannen* (an arrangement where one can buy a bicycle and deduct taxes). The responsibility for cycling policy today lies primarily with local governments, especially in the municipalities (Schultz van Haegen, 2011). Therefore it seems logical that most of the direct spending, seventy-five percent, is done by the municipalities. Smaller municipalities spend around eleven euro per person on cycling traffic, larger municipalities double that amount (Ligtermoet, 2010).

According to Fietsberaad (2012) today's modern cycling policy started with the '*demonstratieprojecten*' in The Hague. The projects were started to stimulate cycling (again) as bicycle use dropped considerably because of the introduction of a more convenient and faster mode of transport, the car (Dienst Gemeentewerken 's-Gravenhage, 1978). Later followed an evaluation of the bicycle network in Delft, it were preparations for a more intensive role of the *Rijksoverheid* (Central Government) to stimulate cycling. This intensive role became evident in the *Masterplan Fiets*. Nowadays the role is a little more distant and the Central Government has a more facilitating role, less intensive in terms of visibility and control; equally intensive in budgets. This role is, according to Fietsberaad (2012), generally accepted because of a believe that cycling policy does not need strong central government control but is more effective on local, decentralised, level. The Central Government is focusing on those things that local governments cannot regulate itself, knowledge development and dissemination in the first place. The *Rijksoverheid* is further concerned with designing demands for bicycle parking's at railway stations, designing a (central) approach to cycling theft and demands for bicycle storage in building regulations '*Bouwbesluit*' for new housing.

Municipalities are therefore responsible for the majority of facilities used by cyclists. "This not only involves the road infrastructure, but also bicycle parking facilities at shops and schools. The local bicycle path network is also a municipal responsibility" (Ministry of Transport, Public Works and Water Management, 2009, p. 26). This however makes that each municipality has a different approach to cycling. Some municipalities integrate bicycle policy in the general traffic and transport policy others implement an independent bicycle policy. The main objectives of bicycle policy is often "the promotion of bicycle use and increasing traffic safety" (Ministry of Transport, Public Works and Water Management, 2009, p. 26) as the overall aim is to make the bicycle as attractive as possible.

"The construction of good cycling networks and parking facilities are the main components. Combating bicycle theft is a major component of bicycle policy in large municipalities. Besides physical and spatial measures to stimulate bicycle use, education and information are vital" (Ministry of Transport, Public Works and Water Management, 2009, p. 26).

Dutch cycling policy is build upon three pillars: building / improving cycling infrastructure, marketing activities and more social policy. This to overcome the practical, emotional or social reasons one does not cycle. Sometimes they are combined, sometimes they are deployed separately from each other. However they always have the goal to make cycling more attractive.

CYCLING INFRASTRUCTURE

The important and decisive role of the municipalities does not mean that higher governments have no role in cycling policy. Provinces for instance always had and have a role in securing the safety of cyclists on and along provincial roads and in (creating) recreational cycling routes and paths (Fietsberaad, 2012b). The attention for recreational cycling increased in recent years and extended to the perfection of a long distance cycle network.

Also the Dutch central government has and had always played a strong guiding role in spatial planning, the scarcity of space in the densely populated country seems the most important reason (Ministry of Transport, Public Works and Water Management, 2009). Bicycle use has benefited from city expansions. The decision for a new residential area influences the way in which the future inhabitants will travel. From a cycling perspective “it is important that new business and residential sites are not built on the edge of expanding metropolitan districts, but rather within the daily cycling distance of three kilometre from the central areas of large and medium-sized cities” (Ministry of Transport, Public Works and Water Management, 2009, p. 55).

Most of the bicycle infrastructure finds its origin in the *CROW recommendations*. In 1993 CROW produced the first version of a Design Manual for bicycle facilities what was entirely revised in 2006, and will also be translated into English. The Design Manual introduced the five main requirements (they should be safe, direct, comfortable, attractive and cohesive) for bicycle-friendly infrastructure (Ministry of Transport, Public Works and Water Management, 2009, p. 55). They apply to the entire network of bicycle routes and also to the facilities at road stretches and intersections. These requirements might make clear that the emphasis in Dutch cycling policy has always been on improving the road infrastructure. Therefore “for many people, constructing cycle paths is also synonymous with bicycle policy. But in a bicycle-friendly infrastructure, the issue is more than just cycle paths” (Ministry of Transport, Public Works and Water Management, 2009, p. 55).

MARKETING

Besides infrastructure, that might influence one’s rational choice to cycle, there are other forms of policy that try to influence one’s emotional choices. Brömmelstroet, Hulster and Crouse (2010) argue, by looking to some European best practices, how marketing can help constructing a cycling culture. These best practices include for instance the promotion of cycling in München (München, 2010). In the German city was a campaign organised that neglected all the rational choices but focused on influencing one’s emotions. They tried to portray the image of cycling in a ‘chic, cool and smart way’ (Brömmelstroet, Hulster and Crouse, 2010) where people want to identify with. In Copenhagen cycling is promoted by photographing stylish people riding their bike through the city and creating a positive image where others want to identify themselves with (Copenhagenize, 2012). Other campaigns, similar as the Copenhagen and München, are done throughout Europe.

Recently also in the Netherlands marketing became part of cycling policy and now also here local governments try to stimulate cycling with the use of promotion and marketing tools (Fietsberaad, 2012b). In 2010 Apeldoorn and Eindhoven participated in a project that was called *Fiets en Win* (Cycle and Win). Participants could win prizes simply by cycling and using certain bicycle sheds in the city centre. Fietsberaad, the promoter and creator of the campaign claims success but figures are not known. In Hilversum, Amsterdam, ‘s-Hertogenbosch and Tilburg is a marketingstrategy used what is called umbrella branding (Van Oijen, 2011). A form of marketing that combines several strategy’s by the local governments to stimulate cycling. In for

instance 's-Hertogenbosch this done by a project called *Lekker fietsen* to associate terms as cheap, convenient, fast, environment friendly with cycling. Response by the public was positive, but results are not known (Van Oijen, 2011). In Amsterdam is more or less the same done. But also in Amsterdam there are no results known (Van Oijen, 2011) and this is the same for the project in Tilburg. Also *De Fietersbond* tries to influence one's perceptions towards the bicycle by marketing. Other organisations use one of the European cycle races, by bringing the Tour de France to Rotterdam and Amsterdam, to promote cycling in the Netherlands (Hendriks, 2010). These campaigns all focus on a broad audience. Although Brömmelstroet, Hulster and Crouse (2010) argue that marketing is a cheap policy instrument it is also a policy instrument of whom the effects are not know. A study by Fietsberaad (2009) indicates that effects of these (emotional) marketing campaigns are either not know or are rather small.

SOCIAL POLICY

Marketing influences one's emotions about riding a bicycle. But as indicated in chapter one there are also more social reasons one might not cycle, as research indicates that bicycle use is particularly low amongst women of non-Western origin (Kennis Instituut voor Mobiliteitsbeleid, 2011). These women tend to make less movements than their native peers as well as non-Western men. Most of the movements they do make are done on foot or by public transport (Harms, 2006). In addition research done by Harms (2006) indicates that women of Turkish and Moroccan origin participate less (than non-Western men and native Dutch females) in society. Harms concludes that within the Netherlands many women of non-Western origin find themselves in underprivileged positions in society. They often do not actively take part in society, do not speak Dutch and have limited contacts outside their own environment (OCW, 2007). Thought is that by giving cycling education (both theory and practice) these problems can be overcome (Van der Kloof, 2011). Several parties in the Netherlands provide these kind of lessons. *De Fietersbond* is one of them. They do this because they claim that there is a gigantic need among women of non-Western origin to understand how to cycle:

“er is een enorme behoefte aan fietslessen onder nieuwe Nederlanders, met name onder vrouwen, die niet met fietsen zijn grootgebracht”¹ (Fietersbond, 2012a).

De Fietersbond claims that the lessons improve their possibilities and their independence. Therefore there are several local governments who hire *De Fietersbond* to give cycling lessons. In 2012 this was for instance done in Rijssen (Overijssel). Local government hired *De Fietersbond* as they believe that

“kunnen fietsen draagt ertoe bij dat allochtone vrouwen zich vrijer in Nederland Fietsland kunnen bewegen en dat draagt ook bij aan de integratie en participatie”² (Güven, 2012)

Güven states that knowing how to ride a bicycle can make that immigrant women can move freely in cycling country the Netherlands. Women attending cycling lessons in Rijssen claimed that they do this as they are perceived as “gezellig” (fun) and afterwards the women hope to be able to bring their children to school or cycle with their grand children. Besides these reasons cycling is also taught to increase their self-confidence (Fietsberaad, 2011). Attending these lessons is often for free as the barrier to participate is kept low (and therefore paid by the local government). It is also not obliged to own or have access to a bicycle. The women

¹ Translated to English: there is a gigantic need amongst immigrants, especially women who did not grow up with the bicycle).

² Translated to English: being able to cycle makes that one is able to cycling trough the Netherlands as a cycling country as well as that it might benefit integration and participation.

attending the cycling lessons in Rijssen (two groups that consist out of six women) all did not own a bicycle (during the classes they borrowed a bicycle from a *sociale werkplaats* (sheltered workshop) and all perceived buying a bicycle as something expensive. There were no conditions on attending the lessons and free for the participants as the total fee (of €2175) was paid by the city government. Güven (2012) states that lessons were successful as twelve of the thirteen participants finished the course. Therefore they might organise another course in the following years. Güven (2012) states that they will not do a post-test to indicate the success of the lessons as she states that the participants “zijn zeer enthousiast dus we gaan ervan uit dat ze zullen gaan fietsen”³ (Güven, 2012).

Whether participants of the lessons are enthusiastic or consider them *gezellig*, successes of these cycling lessons are limited. Hendriks (2012) and Van der Klei (2012) argue that after participating in the courses, and understanding how to cycle, women do not cycle. According to Wolters (2011) the goal of cycling education is to stimulate bicycle use to improve motility (motility refers to the number of possibilities that an individual has to move in time and space). The study done by Wolters (2011) is actually the only (found) study that researched the effects of the cycling lessons. That is rather strange as for instance the city of Tilburg spend €143.665 for five years of cycling lessons (Omroep Brabant, 2012). However, Wolters (2011) concluded that the cycling lessons do succeed in teaching one how to cycle, but that being able to ride a bicycle in the city park does not make that one will go shopping, or pick up her children from school by bicycle. Wolters concludes that the successes of cycling education are limited, she found that for half of the participants motility did not increase. The reason is that they do not have access to a bicycle or are afraid to cycle on public roads. Wolters suggests that an advanced course that teaches one how to ride on public roads (with children or groceries) might help. To overcome the ownership problem she suggests that local government, in different ways, could provide a free bicycle.

4.2.3 CONCLUSION

Dutch cycling policy is predominately focused on influencing one’s rational choice. By constructing new roads and upgrading existing one’s. These are all justified as cycling is perceived as sustainable, healthy, environment friendly. However not everybody is attracted by these reasons. By marketing and social policy is also tried to influences one’s emotional choice. It seems that is tried to open up the field of cycling for the one’s for where the bicycle has no place in the habitus. However effects of these measures are either not known or rather small.

4.3 CYCLING IN HOOGRAVEN AND BOSCHVELD

This section will focus on Hoograven and is a combination of desk research and fieldwork. In the Netherlands the responsibility for cycling policy lies primarily with local governments. Therefore cycling policy, just like use, differs from municipality to municipality. Therefore there are differences in infrastructure, marketing and social policy that should contribute to more cyclists. It are local perceptions and actions who are determinative.

³ Translated to English: they are enthusiastic and we expect that they keep cycling.

4.3.1 INTRODUCTION

As indicated in the first part of this chapter Dutch cycling is rather different from that in other parts of the modern world. As mentioned this has three reasons, almost the entire country is flat, the Dutch cities often did not create a pro-car infrastructure and also the protestant ethic of the Dutch make that the bicycle suits them in their transport needs. These factors are however applicable on national level, on local level there are more factors that influence bicycle use. According to Ververs and Ziegelaar (2006) differences in bicycle use throughout the country can be explained because of four types of variables. The first group of variables can be labelled *traffic policy* (including bicycle policy) it includes factors like bicycle and car infrastructure and traffic safety. The second group is labelled as *spatial and spatial-economical factors*, this includes the population, population growth, urban density, density of retail establishments etcetera. The third group are *characteristics of the residents*, origin, age, religion, political preference, health etcetera. Fourth group are *physical characteristics of a place*, temperature, winds, rain, hilly terrain, etcetera. The local situations, perceptions and actions (in Hoograven and Boschveld) are categorised in three of the mentioned groups of variables. The physical characteristics of both places are left out, as there are no decisive differences to expect in for example weather and terrain between Hoograven and Boschveld. Another category is added and that is a category labelled *local attitudes* this category covers elaborations of interviews with those involved.

4.3.2 HOOGRAVEN

It is hard not to imagine bicycles in the streets of Utrecht. Young, old, student or commuters it is a mixed group who cycles. City government claims that half of the movements from, to and in the city is done by bicycle (Utrecht, 2012b). However bicycle use in (especially Nieuw) Hoograven is rather low (Fietsersbond, 2011). Several parties work on increasing the number of cyclists, all for different reasons.

Hoograven is situated on the southern outskirts of Utrecht, and is part of an area labelled *Utrecht Zuid*. It is a long stretched neighbourhood that reaches from the orbital motorway in the south to the city centre in the north. It is that big that it is actually divided in two smaller sub-neighbourhoods, Oud and Nieuw Hoograven. Most of the neighbourhood was built after World War II when Utrecht annexed the polder of Hoograven for urban expansion. The district now has about fifteen thousand inhabitants (Centraal Bureau voor de Statistiek, 2012). Most of them, 66%, are of native Dutch origin.

In 2007 four neighbourhoods in Utrecht were labelled as so-called *krachtwijken*, neighbourhoods nationwide (but most of them in the Randstad) that needed some sort of special attention because of a concentration of (urban) problems. The *krachtwijken* in Utrecht are; Overvecht, Kanaleneiland, Ondiep and Zuilen-Oost. Local government also added Hoograven to this list. As, according to the city government this district also needs extra attention to overcome certain urban problems (Voogt, 2012). Most of these problematic urban issues however occur in Nieuw Hoograven (Voogt, 2012). For example the health monitor indicates that 40% of the inhabitants of Nieuw Hoograven suffers overweight or obesity (Fietsersbond, 2011). Furthermore the number of benefit claimants is rather high (seventeen per cent) and is the social cohesion rather low (5,4). The combat against these problems already started in the mid-nineties. Several private parties collaborated to overcome the problems in Hoograven, as the city council was under control of the central government as it was bankrupt (Voogt, 2012). The so-called '*artikel 12 status*' made that the city itself was powerless against the increasing decay. Private parties (builders and housing corporations) developed plans

that led to a physical restructuring of the district. Originally the plans were supposed to be finished in 2002 but because of several (planning) delays the completion will be around 2012.

SPATIAL AND SPATIAL-ECONOMICAL FACTORS

The architecture in the neighbourhood is, because of its size and building years, diverse. However for a large part it is composed of series of rectangular *stamps* with green courtyards. A large part of the 2.700 homes are (cheap) social houses owned by housing organisations. Besides the courtyards, that are semi-public open spaces, Hoograven has lots of public green and water (Utrecht, 2008). Shops are mostly concentrated in two shopping centres, one located on the 't Goylaan the other is located on the Smaragdplein. Schools and other public facilities are spread across the neighbourhood.

CHARACTERISTICS OF THE RESIDENTS

The population of Utrecht Zuid is similar to other parts of the town. Also the ethnic composition does not differ from the rest of the city. But there are rather large differences between the different neighbourhoods. Almost one in five inhabitants of Utrecht is of non-Western origin. The biggest group are Moroccan (nine per cent) followed by Turks (four per cent) and Surinamese / Antillean (three per cent). In Hoograven these differences exist as well, therefore it is again a district with two faces. The total number of non-Western immigrants is almost three thousand (Utrecht, 2012a) of whom two thousand are of Moroccan origin. They do not live spread across the district but concentrate in Nieuw-Hoograven (Voogt, 2012), the average percentage of inhabitants of Moroccan origin for the whole neighbourhood is fifteen per cent (Utrecht, 2012a). In Nieuw-Hoograven the number of social benefit claimants is more than ten per cent, in Oud-Hoograven less than three (Utrecht, 2012a). Differences between the two neighbourhoods also occur on personal level, i.e. capacities of the inhabitants. Some seem to struggle in surviving, others are able to organize activities (Voogt, 2012). The different origins might also indicate a different position of the bicycle.

TRAFFIC POLICY

Utrecht has the ambition to be a cycling city (Utrecht, 2010). The city council wants to entice people to cycle and therefore invests in bicycle facilities, the total amount of investments in cycling is €67.756.000 (Utrecht, 2010). Time and comfort are important factors influencing the choice of transport. The city council therefore states that bicycle use only will increase when fast and safe routes are offered. With good parking facilities on the place of destination. The third main point of the city its cycling policy is improving comfort for the cyclists (Utrecht, 2012b). It states that use of the bicycle will decrease when comfort is lost. The city therefore came up with certain standards that cycling facilities should have. Funds are however used for both for hard infrastructure investments and more social investments:

- Infrastructure. The top ten cycling routes are upgraded (on maintenance level) to make them more attractive. Also several other *bottlenecks* and routes are upgraded to a higher level to make cycling more attractive.
- Bicycle parking's and *leenfietsen*. Additional bicycle shelters in the innercity should reduce the parking problems downtown. The council wants to make the bicycle more popular in the *voor- and*

natransport of public transport and car. Therefore it will facilitate and stimulate initiatives regarding *leenfietsen* (rental bikes).

- Promotion. The council provides funds to improve the signage and visibility of cycling routes and parking's. Funds will also be used to promote cycling use by promotion campaigns to change inhabitants attitudes.

On neighbourhood level more infrastructure improvements are done by for example the neighbourhood government. *Wijkbureau Zuid* (district office) indicated that there are many requests for the placement of bicycle racks (Voogt, 2012). Not only from the northern part of Hoograven where many students live and bicycle racks are packed with bikes but also from the more southern part of the district where most of Hoogravens non-Western inhabitants live (Voogt, 2012). However when looking at Figure 5 one can see not every rack is used. Besides the bicycle racks, other organisations came up with hard infrastructure related plans that should increase the number of cyclists. For instance housing corporation *Portaal* writes in their plan of approach for Hoograven that in order to prevent crime (including bicycle theft) police will increase surveillance and detection capacity.

In 2008 the city council started with identifying wishes of inhabitants of Hoograven. One of the subjects that was suggested by the inhabitants was cycling (Voogt, 2012) or actually not being able to cycle. De *Fietsersbond* (2011) claims that there was a latent need for cycling lessons of women of non-Western origin that did not know how to cycle. '*Heel Hoograven Fietst!*' originated from this. It had to anticipate in the needs of the women and should attribute to more (social) mobility as well as that the project closes on several goals of the city government regarding health and physical activity, improving air quality, encouraging emancipation and breaking of social isolation (Fietsersbond, 2011). The project focuses on mentality and culture, rather than on infrastructure. The reasons to participate are divers. The cycling lessons are perceived as *gezellig* (fun) and are used to learn Dutch. Besides this participants want to understand how to cycle because, the bicycle is cheaper (than bus and car), healthy, self-development, parking is expensive and now their husband can use the car (Bierens, 2012).

LOCAL ATTITUDES

Just as local policy, local attitudes are of influences in regard to cycling behaviour and in previous chapters was outlined how Van Olden (2012) concluded that the bicycle suffers a bad image in Amsterdam Nieuw-West. And how this image causes that less youth uses a bicycle to go from A to B as they perceive the bicycle as something that affects your status negatively. According to Dahmane (2012), who for this research questioned young people on their cycling behaviour, the bicycle use of Hoograven's Moroccan youth is not negatively influenced by a possible image problem. She claims (after questioning Moroccan youngsters) that they do not think that they look like a fool when cycling to school. The youngsters argue that it has something to do with laziness and a need for comfort:

"Na een aantal [Marokkaanse jongeren] gevraagd te hebben of dat ook voor hen geldt, zeggen zij dat het eerder te maken heeft met luiheid. Ze zoeken iets dat meer comfortabeler is. Ze vinden het geen voor schut om met de fiets bijvoorbeeld naar school te gaan, maar ze willen gewoon comfort. In de

wijk zelf wordt wel de fiets gebruikt, omdat het dan sneller en flexibeler zou zijn dan lopen of openbaar vervoer”⁴ (Dahmane, 2012).

The youth argues that they do use a bicycle as they regard it as faster and more flexible as walking or public transport for movements within the neighbourhood. Cycling is however limited to the neighbourhoods boundaries. For transport beyond the neighbourhoods boundaries other modes of transport are chosen as they are perceived as more comfortable and faster. One who does not cycle does not seem to do this because his status is negatively influenced. What does not mean that status is not important for the Hoogravens youth:

“Status is wel belangrijk voor hen, maar een fiets doet daar geen afbreuk aan. Hij wordt wel vergroot als je eenmaal een auto of scooter hebt”⁵ (Dahmane, 2012).

Dahmane here argues that owning a car positively influences one’s status. But she also argues that the car is predominately used outside the neighbourhood:

“Er wordt wel gefietst, maar veel in de eigen wijk. Buiten de wijk wordt vaak gebruik gemaakt van het openbaar vervoer of vrienden/vriendinnen die een auto hebben”⁶ (Dahmane, 2012).

The car and public transport are being perceived as more comfortable for travelling beyond the neighbourhoods boundaries and the bicycle is in its turn perceived as comfortable for trips within the neighbourhood. The most likely reason seems to be car-discouraging infrastructure within the neighbourhood.

Conversations with two owners of bicycle shops in Hoograven (De Bock, 2012 and Ekris, 2012) indicated that *everybody* in Hoograven cycles. There are however differences in the cycling behaviour. Both owners claim that they have little non-Dutch customers. The immigrant customers that do come spend less on their bicycles and mostly buy the standard models. Ekris has never sold an *e-bike* to a non-Dutch customer and only once a racing bicycle to a non-Dutch customer. They summarised the cycling of the non-Dutch as “*fietsen omdat het moet*” (De Bock, 2012 and Ekris, 2012) cycling because you have to.

CONCLUSION

A quarter of all movements in Utrecht is done by bicycle, but in Hoograven cycling is less popular. The neighbourhood is diverse in several aspects, the many different cultures of its inhabitants and differences in the spatial surroundings. Cycling policy in both Utrecht as Hoograven focuses on different aspects, it is both hard (infrastructure) as soft (social policy). Local attitudes towards the bicycle are said to be positive. Hoogravens youth cycles, does not regard the bicycle as a vehicle that undermines one’s status. However bicycle use of the Hoogravens youth is said to be mostly within the neighbourhood as for trips outside the area more comfortable options are available and chosen. Participants of the cycling lessons claim that the cycling lessons are successful what might suggest that the pedagogic effort (Bourdieu mentions) to change one’s habitus can be achieved by these cycling lessons. Bicycle shop keepers claim that *everybody* in Hoograven cycles but argue that differences in attitudes to the bicycle exist.

⁴ Translated to English: after questioning Moroccan youth they claim that it has to do with laziness. They are in search of a mode of transport that is more comfortable. Within the neighbourhood the bicycle is used as it is perceived more convenient as walking or public transport.

⁵ Translated to English: status is import, but the bicycle does not influence it negatively. It is however influenced positive when one has a car or a scooter.

⁶ Translated to English: One does cycle but most of the times within the neighbourhood. Outside the neighbourhood public transport or (a friends) car is used.

4.3.3 BOSCHVELD

Boschveld is a district in the city of 's-Hertogenbosch. It was built in the fifties of the last century on a spot that before known as a sport park (De Hooge Donken). The district is on the western side of the 's-Hertogenbosch railway station and in close proximity to the city centre. It is part of the larger district West, that consists out of eleven smaller districts of whom five are residential areas: Boschveld, Deuteren, Schutskamp, Kruiskamp and Paleiskwartier. In 2005 the number of inhabitants of Boschveld was 3.343. About 75% of the houses they live in are rental (public and private) the other twenty-five per cent are privately owned. About 33% of the inhabitants is of non-Western origin which makes it the most multicultural neighbourhood of 's-Hertogenbosch.

SPATIAL AND SPATIAL-ECONOMICAL FACTORS

Boschveld consists of several residential quarters and a business park. The neighbourhood has various types of housing, ranging from land-based, downstairs / upstairs apartments to apartments. Most of the houses were built in the fifties and many of these houses are still there. In the early years, the district was mostly inhabited by the workers from the adjacent industrial area '*De Rietvelden*'. Boschveld was therefore a working class district. Because of the shortage of labour staff companies like '*Michelin*' and '*Heineken*' recruited staff in countries like Turkey, Marocco, Spain and Greece. Many of them stayed, and some still live, in Boschveld. The low rents in the area attracted more newcomers from non-Western countries and nowadays forty percent of the district is inhabited by people of non-Western origin.

A local newspaper one's praised Boschveld for its modern atmosphere and beautiful apartment complexes (KEI Centrum, 2012). This changed, as local newspapers now call Boschveld one of the problem areas within the city of 's-Hertogenbosch. In the seventies and eighties the district aged and liveability came under increasing pressure from urban decay, crime, drug nuisance and overcrowding. In the seventies and eighties the decay started. Mainly because of the close proximity of the central station drugs related crime emerged, the district changed from working class district to a problem district. In the beginning of the new century local government started with urban renewal to overcome these problems. In 2005 a master plan was written for Boschveld emanating from large-scale demolition and new construction within a period of approximately twenty years (KEI Centrum, 2012). The housing stock was supposed to grow from 1.450 to 3.500 houses, inter alia by the construction of two residential towers. This was however cancelled because of resistance in the neighbourhood. Therefore another approach was chosen what resulted in "*Wijkplan Boschveld beweegt*". This plan functions as the framework for restructuring in the next ten till fifteen years. In this plan there is a focus on social aspects that are perceived as the 'building blocks' for the physical development. Today, the housing stock is approximately 1.450 dwellings, of which approximately 1.100 are social housing estates. The houses are mostly medium-high portico and gallery flats within a rectangular street pattern. The district has several facilities, ranging from a community centre to shops.

CHARACTERISTICS OF THE RESIDENTS

Boschveld is the neighbourhood in 's-Hertogenbosch with the highest number of inhabitants of non-Western origin. Almost half of the inhabitants of this district is of non-Dutch origin what might suggest a small number of cyclists because of the traditional different position of the bicycle in the habitus. The number of Moroccans is the highest, this ethnic group grew since 2000 with a fourth, and now fourteen percent of all inhabitants of

Boschveld is of Moroccan origin. The percentage Turks, Surinamese and Antilleans has actually declined since 2000 ('s-Hertogenbosch, 2009a). The neighbourhood has a young multicultural population, and till the of twenty 65% is of non-Western origin (Prisma Brabant, 2006). In 2006 72,5% of the residents was not older than 45 years. The group of 65 and older is relatively small. According to the city government Boschveld is a district where inhabitants live serene and comfortable with each other and inhabitants are actively involved ('s-Hertogenbosch, 2009). The social economical position of a (relatively) large group of inhabitants is worrisome (Companen, 2007). Of all employed almost half has a low income. The average income per household is almost ten thousand euro's below 's-Hertogenbosch's average and the unemployed number is relatively high.

TRAFFIC POLICY

As mentioned in an earlier chapter, the responsibility for cycling policy lies primarily with local governments. Therefore cycling policy differs from municipality to municipality. In 's-Hertogenbosch cycling policy is considered progressive (Ligtermoet, 2012). In the last couple of years the '*Bossheren*' gave cycling a tremendous boost (Van der Steenhoven, 2011) by improving the bicycle infrastructure. The city spend(s) around nineteen million euro on cycling facilities between 2009 and 2015, what is around 2.500.000 euro's per year. With these investments the city council wants to achieve a growth in bicycle use, from 33% to 44%. 's-Hertogenbosch wants to be a true cycling city ('s-Hertogenbosch, 2009b). The city therefore planned improvements in the infrastructure, but it is also working on the soft social side of cycling.

According to Van Waes (2012) improvements in the bicycle infrastructure are doing good. The city succeeded in improving the cycling routes to shopping malls and sporting grounds as well as improving the infrastructure around schools. It also succeeded in improving the connection between the northern and southern parts of the city. Upcoming investments should improve the connection of the bicycle with and between the western and eastern part of the city. This is and will be done by creating an infrastructure with unbundling (*ontvlechten*) of car and bicycle traffic, high-quality main bicycle routes and where necessary overpass junctions to facilitate traffic flow and safety of both cyclists and car traffic. The hard side of cycling policy also deals with bicycle parking, this is improved by creating free guarded bicycle parking and more safe bicycle parking facilities. According to Van Waes (2012) all these improvements contribute to more cyclists. He concludes that the cycling policy in 's-Hertogenbosch is predominantly on creating new bicycle paths and parking facilities. He argues that in order to keep cycling levels growing the soft policy side needs more attention. This is for instance already been done by cycling lessons.

In 2006 the city of 's-Hertogenbosch started with facilitating these cycling lessons. According to Van Dillen (2012) the city government received signals that certain groups of adults, in most cases non-Western immigrant women, were in need of cycling (and swimming) lessons. Although the involved civil servants doubted if they were the one's that were responsible to respond to this need, the department of 'Sport en Recreatie' of the city's government created budget to accommodate it. The goal of the city government is to encourage movement (literal and also social) of one by facilitating these cycling lessons. Therefore the government takes a facilitating role (Van Dillen, 2012) what means that the government funds the lessons but the organisation is done by other parties.

The courses consist of six to ten women, their origin is different (Van Dillen, 2012). It are therefore not only Turkish or Moroccan but also South American, Eastern European and also Dutch women. Their ages differ, from twenty till sixty. The section 'Sport en Recreatie' (sports and recreation) bought bicycles (for the students) and the lessons are given by teachers of *Landelijk Steunpunt Fiets* (an expertise centre on cycling lessons). Meanwhile there are fifteen courses given and the most recent one started in September 2012. According to Van Dillen (2012) the courses are successful however her statement cannot be backed by research. Van Dillen based her claim on the experiences of the teachers (hired by the *Landelijk Steunpunt Fiets*) who argue that they see ex-participants of the courses cycle. This claimed success however makes that the *Brede Bossche Scholen* (community schools) are planning to organise a follow-up course. In this course the women are for instance taught how to cycle with kids (as Wolters (2011) suggests).

Van Dillen-Baudoin (2012) and Poldner (2012) both work as cycling instructors in 's-Hertogenbosch and claim that the women lack the capability to cycle is often because they did not learn how to cycle in their country of origin. Instead of the Dutch, they originate from countries where cycling is not part of the *habitus*. It is not normal to be taught how to cycle when you're young and once in the Netherlands learning how to cycle was not one of the priorities (Poldner, 2012). They differ on what reason is decisive that the women did not cycle in the Netherlands before. According to Poldner it is because they simply did not think of cycling before. According to Van Dillen-Baudoin it is more complex and is because in most countries of origin, that vary from Egypt to Armenia, Estonia, Iran, Afghanistan, Kenya, Somalia, Suriname and Aruba, it is inappropriate for women to cycle. As well as that one who is cycling is being ridiculed as it is something for the poor. In the Netherlands however, it is the other way around and, cycling is the norm. This difference causes tensions and make that cycling is not directly perceived as normal. Some of the immigrant women do however want to be taught how to cycle as they see others cycling, they are encouraged by the community centre and think that they will be more independent when they are able to cycle (Van Dillen-Baudoin, 2012). This 'independency' is then used for doing groceries and bringing kids to school by bicycle (i.e. use in and around their own neighbourhood). According to Van Dillen-Baudoin (2012) this differs with the bicycle use of the native Dutch who use the bicycle not only for daily purposes but also as a way of recreation (i.e. cycling tours). Despite the claimed success of the lessons for women, lessons for men have not been organised up till now. According to Van Dillen (2012), the in the lessons participating women claim that their husbands are too lazy to cycle or that they are ashamed admitting that they cannot cycle. This differs with statements of Van Dillen-Baudoin (2012) who suggests that most of the immigrant-women's husbands are able to cycle. Poldner (2012) argues that it are sometimes the partners who motivate their women to be taught how to cycle. According to Poldner this is a tremendous change with years ago when the men forbid their women to cycle.

Because of these, apparently successful, investments in both hard and soft policy the city of 's-Hertogenbosch was in 2011 chosen as cycling city of The Netherlands (Ligtermoet, 2012). This is somehow special as located in the south of the country, where cycling is historically less done as in northern parts, 's-Hertogenbosch is a newcomer in the list of cycling cities. According to Van Waes (2012) the so-called soft side of cycling policy is the important next step in making 's-Hertogenbosch a true cycling city. The government is

seeking ways to motivate their inhabitants to use the bicycle more. This will be done by marketing activities and giving up-to-date information on bicycle routes and parking's.

LOCAL ATTITUDES

Just as local policy, local attitudes are of influences in regard to cycling behaviour. In the city of 's-Hertogenbosch cycling is less common as in other Dutch cities (Fietsberaad, 2010). The city government acknowledges this ('s-Hertogenbosch, 2009b) and an observation done on in June 2012 endorses this (although it is a snapshot), see appendix.

That cycling is less common is also illustrated by the fact that the only primary school in Boschveld does not take part in the traffic education project by the provincial government. In contrast to almost all other schools in the city of 's-Hertogenbosch. 't Boschveld' is a so called *zwarte school* (a school with predominately kids of non-Dutch origin). It only has 90 students and that number is declining every year. Most children that attend the school live in Boschveld. They walk to school, others are brought by car (Van Zoggel, 2012). What explains the absence of a bicycle shed and the low number of bicycles on the schoolyard. The school does not stimulate cycling, and as mentioned does not participate in the regional traffic lessons organised by the province of Noord Brabant.

Other parties within the neighbourhood are more cycling minded. In 2011 a bicycle workshop was opened. Every Monday, Tuesday and Wednesday inhabitants of the neighbourhood can come to a garage box to understand how to fix bicycles. It is an initiative where people (of immigrant families) get introduced to cycling and when attending a few lessons earn their own bicycle.

“De werkplaats is ook een plek waar wijkbewoners elkaar ontmoeten, waar aandacht is voor het ontwikkelen van sociale vaardigheden en waar een beroep gedaan wordt op je talent en doorzettingsvermogen”⁷ (Joore, 2011).

According to the initiator the repair shop is more than just fixing a bicycle. It is a place to meet neighbours and develop social skills. What started as a workshop for kids has now become a workshop for all inhabitants of Boschveld. Where they not only is taught how to fix bicycles but also how to ride a bicycle. As Joore (2012) argues cycling is not possible without knowing how to ride a bicycle and have one available.

CONCLUSION

City government tried to stimulate cycling in the Boschveld neighbourhood and the city of 's-Hertogenbosch as a whole. It succeeded on city level, but results on neighbourhood level are not clear. Boschveld is a young and multicultural neighbourhood where cycling is not the norm, this becomes clear when knowing that local kids do not cycle to school. Government and volunteers as well, try to influence this by social policies that teaches one to cycle or even supply a free bicycle. According to the teachers and a city government policy advisor these lessons are successful but figures are not known.

⁷ Translated to English: the workshop is a place where the neighbourhood can meet each other where and develop social skills.

4.4 CONCLUSION

This chapter made clear how Dutch cycling is different from that in other countries. In the Netherlands cycling is perceived as normal sometimes even the right thing to do, infrastructure is suitable for cyclists and there are little hills to climb. Cycling is so to say anchored in Dutch society and habitus. *Newcomers* in society come from countries where this is different, where the bicycle has a different position within the habitus and therefore cycle less. They and their Dutch neighbours are encouraged to cycle by policy that creates more cycling infrastructure, as well that policy is designed that aims at teaching one how to ride a bicycle, or tries to influence one's attitude towards the bicycle for the good. To talk in line with Bourdieu, by marketing and social policy is tried to explain the rules of the field and to open up the field of cycling. These policies are also applied on local level (i.e. Hoograven and Boschveld). In 's-Hertogenbosch new infrastructure led to better accessible roads and more cyclists. In Utrecht this is more or less the same. According to the stakeholders (i.e. participants and teachers) the cycling lessons (part of the social cycling policies) are successful, however figures are not known. Theory is more critical regarding these lessons and concludes that the participants often do not cycle after participating in the lessons.



Figure 5: Empty bicycle racks in Hoograven Utrecht (own work)

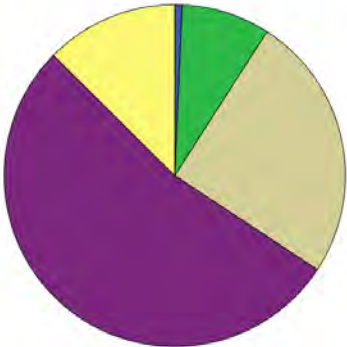
CHAPTER 5. SURVEY OUTCOMES

In July 2012 a survey-research was conducted among inhabitants of Hoograven in Utrecht and Boschveld in 's-Hertogenbosch. Inhabitants was asked whether they cycle and what their ideas on cycling are. A total of 286 people participated in the research. Participants were approached by means of a quantitative research trough a questionnaire. The respondents were informed about the subject and purpose of this study. The questionnaire was then deducted orally. Verschuren and Doorewaard's (2007) book on designing a research

was used as a basis for drafting of the questions. The questionnaire was deducted among visitors of three shopping centres. Two in Utrecht (Smaragdplein and Hart van Hoograven) and one in 's-Hertogenbosch (Van Coehoornplein). There was however one precondition, respondents had to live in one of the two neighbourhoods. The questionnaire was divided into four parts. First asked for basic information about bicycle ownership and was applicable for everyone. Second asked for basics about bicycle use and was only applicable for cyclists. Third asked for information about the use of other modes of transport and was only applicable for non-cyclists. Fourth asked for information about the respondent and if one would be motivated by certain government intervention to promote cycling.

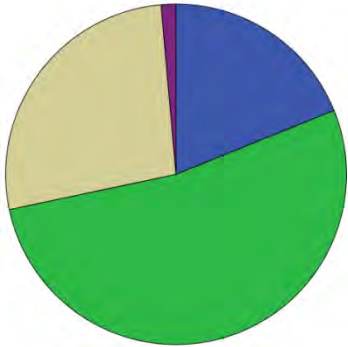
5.1 RESPONDENTS CHARACTERISTICS

The questionnaire was conducted among 286 inhabitants of Hoograven (177, 61.9%) and Boschveld (109, 38.1%). 156 (54,5%) of the questionnaires were answered by males, the other 130 (45,5%) were answered by females. Most of the respondents are adults, to be more accurate, two (0.7%) respondents are between 0 and 11 years old. 24 (8.4%) are between 12 till 17 years of age. 72 (25.2%) respondents are between 18 and 29 years old. Most of the respondents, 152 (53.1%) are between 30 and 66. The others, 36 (12.6%), are 67 years and up. The households they live in are as follows, single: 54 (18.9%), single person with kid(s): 4 (1.4%), two person: 77 (26.9%) and two person with kid(s): 150 (52.4%). The division in the respondents country of birth is as follows the Netherlands: 205 (71.7%), Turkey: 1 (0.3%), Morocco: 28 (9.8%), Suriname: 14 (4.9%), Dutch East Indies: 4 (1.4%) another non-Western country: 30 (10.5%) and a Western country: 4 (1.4%). The respondents are a therefore a diverse group. Who originate from more than ten different countries. Most of the parents (important as that is decisive if one is considered of non-Western origin) of the participants are born in the Netherlands. What means that more than half, 145 (50.7%), of the respondents are of Dutch origin. Others originated from other countries. 66 (23.1%) are of Moroccan origin, nineteen (6,6%) of Surinam origin, eleven (3,8%) of Turkish origin, 6 (2,1%) of Dutch Indone'sian origin, two (0.7%) are of Antilleans origin, 29 (10.1%) are of another non-Western origin and eight (2,8%) are of other Western origin.



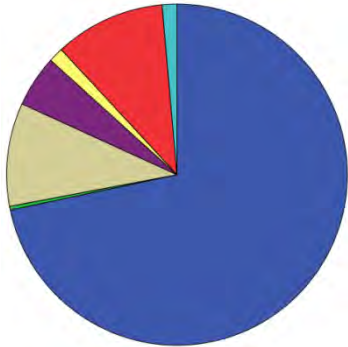
AGE
 ■ 0 - 11
 ■ 12 - 17
 ■ 18 - 29
 ■ 30 - 66
 ■ 67 +

Chart 2: Respondents age.



HOUSEHOLD
 ■ single
 ■ more person, with kids
 ■ more person, without kids
 ■ single person, with kids

Chart 3: Respondents households.



COUNTRY OF BIRTH
 ■ the Netherlands
 ■ Turkey
 ■ Morocco
 ■ Suriname
 ■ another western country
 ■ another non-western country
 ■ Dutch Indies

Chart 4: Respondents country of birth.

5.1.1 GENERAL OUTCOMES

234 (81.8%) of the total participants have at least access to one bicycle, within their household. 52 (18.2%) indicated that they do not have access to a bicycle (of whom twenty-seven of non-Western origin and twenty-two of Dutch origin). In 72 cases the respondents households own two bicycles (25.2%), on average one household owns 3.37 bicycles. Whether they own a bicycle, car or public transport card, 89 persons (31.1%) answered that they do not cycle.



Chart 5: Number of bicycles the respondents own within their household.

CYCLISTS

The destinations of the cyclists are diverse, 26 (9.1%) answered that they cycle to work, 19 (6.6%) answered that they use it when going shopping. Smaller numbers told that they use it when going to school, family and friends, sport, city centre or going on a recreational cycling ride. However the biggest group (95, 33.2%) responded that they use it for cycling to a combination of the above mentioned destinations. Whatever the reason may be 197 of the respondents answered that they cycle (104 of Dutch origin, 81 of non-Western origin). 122 (42.7%) of them answered that they cycle every day.

The survey made clear that the one's who cycle daily are mainly Dutch (74, 60.66%). 39 respondents of non-Western origin answered that they cycle every day. This answer was found after asking participants how often they cycle. One could answer on a scale from one to four. 'One' denotes every day, 'two' every other day, 'three' once a week and 'four' indicates less than a week. So, the higher the number the lower the bicycle use. When calculating the findings is found that the average answer of Dutch respondents is 1,47 (mean is 1,47 and standard deviation is 0.86), respondents of non-Western origin answered 1,95 (Mean is 1,95 Standard Deviation is 1.04). This indicates a statistically significant difference between bicycle use of Dutch and non-Western respondents.

This statistically significant difference was found when calculating the findings with Students t-test in SPSS. In statistics a t-test is a hypothesis test in which can be tested if the null hypothesis (no relationship between cycling and origin) is supported and are equal. If the resulting P-value of the test is less than the critical value of 0.05, the obtained differences are unlikely to have occurred based on random sampling from a population with equal variances. In this test was found that the P-value is 0,001, and this is under the below the threshold chosen for statistical significance (0.05). Therefore the null hypothesis of equal variances is rejected and is concluded that there is a significant difference in bicycle use of Dutch and non-Western respondents.

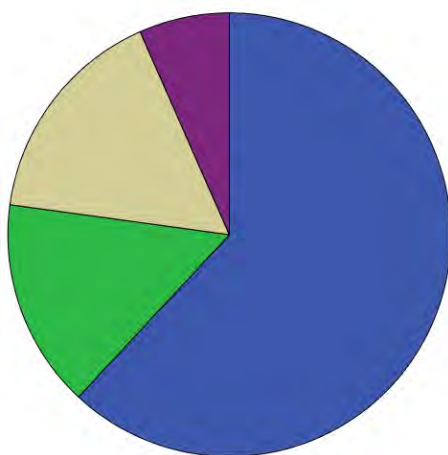
After questioning participants if and how often they cycle, was asked what the maximum distance is one travels by bicycle. One could answer on a scale from one to six. 'One' denotes a distance up to 1 kilometre, 'two' denotes a distance up to 2.5 kilometre, 'three' denotes a distance up to five kilometre, 'four' denotes a distance up to 7.5 kilometre, 'five' denotes a distance up to 10 kilometre and 'six' denotes that one cycles a distance of more than 10 kilometres. So, the higher the number the more kilometres one cycles. The average answer of the Dutch was 4,33 (Mean is 4,33 and Standard Deviation 1,42). The average answer of the non-

Western respondent was 3,44 (Mean is 3,44 and Standard Deviation 1,33). This shows that Dutch respondents cycle over larger distances. The difference between the bicycle use of the Dutch and respondents of non-Western origin is statistically significant as the t-test indicates ($t(183) = 4,31, p = <0,001$).

The Dutch respondents cycle because they perceive cycling as convenient (twenty five times), healthy (twenty two times) and fun (thirteen times). Non-Western respondents answered that they cycle because it is convenient (twenty two times), healthy (thirteen times) and cheap (nine times). Others do it for other reasons or because of a combination of the above.

Chart 6: Respondents answer on how often they cycle.

Chart 7: Reasons to why respondents cycle.



NON-CYCLISTS

90 (31.46%) answered that they do not cycle at all. The reasons vary, but none of them answered that they do not cycle because they do not know how to cycle. Most respondents (22.1%) answered that it is because of another form of transport is more comfortable and easier. Then there are two groups of similar size. First group claims that it is their (bad) health what makes that they cannot cycle at all (varying from a long disease to heart problems). The second group claims that their destination is too far to travel by bicycle.

As mentioned 90 respondents answered that they do not cycle at all. 41 of them are of Dutch origin (of the total 145 respondents of Dutch), 44 of non-Western origin (of the total 124 respondents of non-Western origin) and five originate from other places. What indicates that respondents of non-Western origin more often do not cycle. When looking to why Dutch and non-Western respondents don't cycle there are some differences. Most heart reasons why the non-Western respondents do not cycle is because they do not own a bicycle (eight times), they perceive their destination too far to cycle (eight times) and another mode of transport is more convenient (eight times as well). A few of them claim that they do not cycle because they perceive the weather as too bad to cycle, infrastructure too dangerous, the bicycle as too dangerous or they

perceive another mode of transport as mode comfortable. These responses are not given by any Dutch respondent. Respondents of Dutch origin who do not cycle most often do this because of their health. Or they perceive another mode of transport more convenient. Whatever the reason may be, the group who does not cycle consists out of 90 people. They who do not cycle mostly travel by car (37 times, 41.6%), walk (eighteen times, 20.2%) or use a moped or scooter (14 times, 15.7%). Notable is that the car is rather popular amongst non-Western non-cyclers. Of the 37 car users ten are Dutch, four are Western immigrants and no less than twenty three (62.16%) are of non-Western origin (of whom eleven are of Moroccan origin).

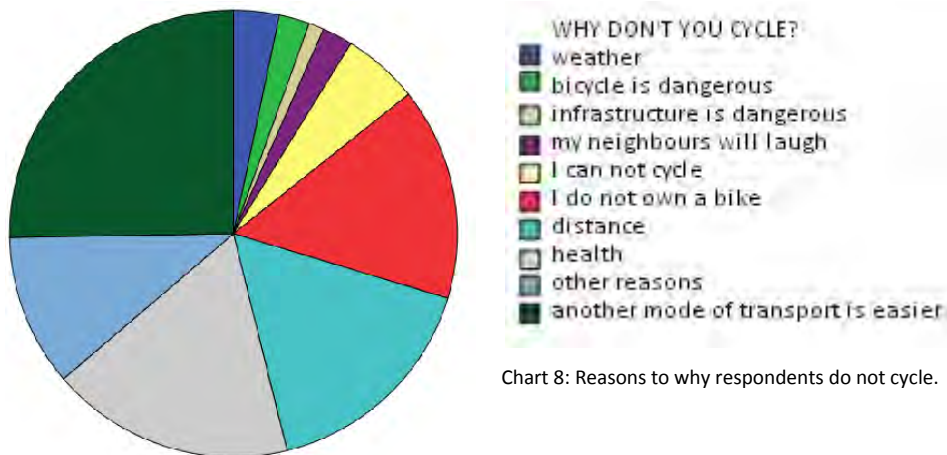


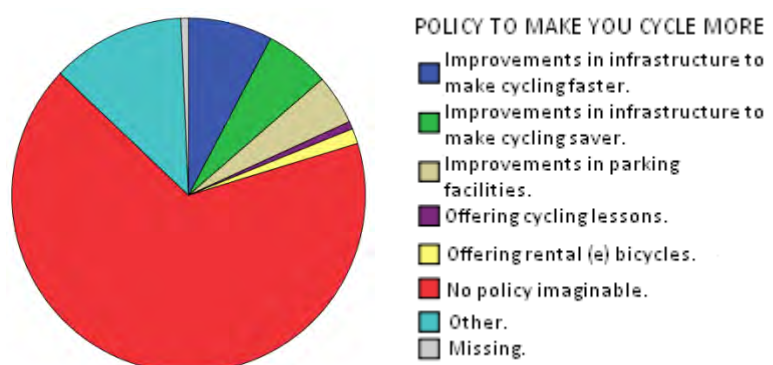
Chart 8: Reasons to why respondents do not cycle.

Cyclist or non-cyclist, one was also asked how often he or she is en route. Previous research indicates that one of non-Western origin is less en route. Respondents could answer on a scale from one to four. One denotes every day, two denotes every other day, three denotes one's a week and four denotes less than one's a week. The average answer of Dutch respondents was 1,12 (Mean is 1,12 and Standard Deviation is 0,40), the average answer of non-Western respondents was 1,05 (Mean is 1,05 and Standard Deviation is 0,21). What actually indicates that non-Western respondents are more often en route. This difference is however not statistically significant ($t(60,39) = 1,07, p = n.s.$).

OPINIONS

Of all the respondents, both cyclists as non-cyclists, 171 (59.8%) respondents regard cycling as normal within their culture. Another 67 (23.4%) think that cycling suits their lifestyle. Only three (1.1%) respondents answered that cycling is for the poor and 16 (5.6%) answered that cycling is not normal within their culture. With that in mind it might not be a surprise that 260 (90.9%) respondents answered that they regard their cycling neighbour as normal, five (1.7%) answered that they think that he has no money, three (1.0%) think he is an environmentalist and eighteen (6.3%) do not think anything at all. However non-Western respondents regard the bicycle more (than Dutch) as a mode of transport for the poor or environment fanatics. There is however only a weak statistically significant correlation (Cramer's $V = 0.24$) between the answers of native Dutch respondents and respondents of non-Western origin.

Besides the thoughts of respondents on bicycle use of their neighbour.



Also the question “by what measure would you cycle more?” was asked. The correlation between the answers and one’s origin is however not statistically significant. The respondents do not have a distinct opinion on what government actions should be carried out to make them cycle more. Twenty-two (7.7%) answered that improvements in infrastructure that make cycling more fast would make them cycle more. Seventeen (5.9%) answered that infrastructure should be improved to make them cycle more. Thirteen (4.5%) answered that improvements in parking facilities would make them cycle more. Improvements that would be regarded as hard infrastructure investments. Smaller numbers answered that offering cycling lessons (two, 0.7%) or providing free bicycles (four, 1.4%) would make them cycle more. 35 (12.2%) answered that *other changes* would make them cycle more. However not all can be accomplished by governmental policy, as a number of respondents answered that better weather would make them cycle more. However most given response in this group was that higher oil prices, (higher) parking costs and other car restrictive measures would make them cycle more. The biggest group, 191 (66.8%) answered that they could not think of one improvement or action undertaken that would make them cycle more. But also by this group was answered that more car restrictive measures would definitely make them use the car less. Not only (higher) parking fees but also a less good car infrastructure would make them cycle more.

Chart 9: What policy would make you cycle more?

LEVEL OF EDUCATION RELATED TO CYCLING

Research by Hertog et al. (2006) indicated that one’s level of education seems to affect cycling. Hertog et al. (2006) concluded that higher educated cycle more. This claim was also put to the test in this research. All 286 were questioned about their highest obtained diploma. However not everybody wanted to answer this question for reasons not known. There were also several respondents who are of an age that they are not able to get a driver’s license and still go to secondary school, those answers might give a misrepresentation. Therefore a distinction is made between their answers and the answers of the respondents who finished more than secondary school. In addition twelve others answered that they did not participate in any other form of education then primary school. Seven of them cycle, five answered that they do not. Five are of Dutch origin, seven of non-Western origin.

51 respondents answered that they either participate in secondary school or their secondary school diploma is their highest level of education. Eighteen answered that they participate or finished a study at what now is called *VMBO 1-2* level, nineteen answered that they finished a study at what now is called *VMBO 3-4* level. Eight answered that they finished or participate in a study what is called *Havo*. Nineteen answered that they finished or participate in a study in what is called *VWO*.

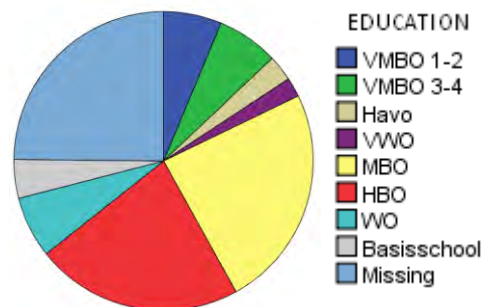


Chart 10: Respondents level of education.

Of the eighteen *VMBO 1-2* (ex)students nine (50%) answered that they cycle. Of the nineteen *VMBO 3-4* (ex)students seventeen (89.47%) answered that they cycle. Of the eight *Havo* (ex)students six (75%) answered that they cycle. Of the six *VWO* (ex)students five (83.33%) answered that they cycle. *VMBO 1-2* students are most often of Dutch origin (thirteen times, against four of non-Western origin and one of Western

origin). Students of *VMBO 3-4* are more multicultural, eight are of Dutch origin, nine of non-Western origin and two of Western origin. The questioned *Havo* students are most often of non-Western origin, two are of Dutch origin. Also the *VWO* students are most often of non-Western origin (four times against two students of Dutch origin). Numbers are too low to be able to draw proper conclusions about the distance covered by bicycle and use, therefore they are not mentioned here but attached in the appendix.

152 respondents answered that they had finished a study above secondary school level, those answers are included in this paragraph. 69 answered that they participate in or finished a study at *MBO* level, another 64 answered that they participate in or finished a study at *HBO* level and 19 answered that they participate in or finished a study at *WO* (scientific) level⁸. Of the 152 who participate in or finished more than secondary school are 82 (53.92%) of Dutch origin, 63 (41.45%) of non-Western origin and seven of another (Western) origin. 32 (out of 69) of the Dutch finished *MBO*, 35 (out of 64) finished *HBO*, 15 (out of 17) finished *WO*. 33 (out of 69) of the respondents of non-Western origin finished *MBO*, 26 (out of 64) finished *HBO* and two (out of 17) finished *WO*.

Of the 69 who are to obtain or obtained a diploma on *MBO* level 46 (66.66%) answered that they cycle, 23 answered that they do not cycle. The *MBO-ers* who cycle do this in most cases every day, 24 times. Six answered that they cycle every other day, twelve cycle one's a week and five cycle less often. Ten of the (ex) *MBO* students answered that the maximum distance the cycle is 2,5 kilometre, eighteen cycle no more than five kilometre, six cycle up to 7,5 kilometre, seven cycle up to ten kilometres and six answered that they cycle more than ten kilometres.

Of the 64 who are to obtain or already obtained a diploma on *HBO* level 47 (73,44%) answered that they cycle, seventeen answered that they do not cycle. The *HBO* graduates who cycle do this in most cases every day, 31 times. Eight answered that they cycle every other day, seven answered that they cycle once a week and one answered that he or she cycles less. Twelve of the ex-*HBO* students answered that they cycle up to 2,5 kilometre, another twelve cycle up to five kilometre, nine cycle up to 7,5 kilometre, six cycle up to ten kilometre and eight cycle more than ten kilometres.

Of the nineteen graduates on *WO* level seventeen (89,47%) answered that they cycle, two answered that they do not cycle. The *WO graduates* who cycle do this in most cases every day, 12 times. Three answered that they cycle every other day and two answered that they cycle once a week. Three of the ex-*WO* students answered that they cycle up to five kilometre, another three cycle up to 7,5 kilometre, three others answered that they cycle up to ten kilometre and eight cycle more than ten kilometres.

These findings therefore indicate that the higher educated (questioned in this research) cycle more and it therefore endorses the claim by Hertog et al. (2006). When calculating the findings with Students t-test was also found that higher educated cycle more. Respondents was asked if they cycle. One could answer on a scale from one to two. 'One' means yes, 'two' means no. So a number closer to one indicates that the group cycles, a number closer to two indicates that the group does not cycle. The average given answer by the 69 lower educated was 1.33 (Mean 1.33 and Standard Deviation 0.48). The average given answer by the 85 higher

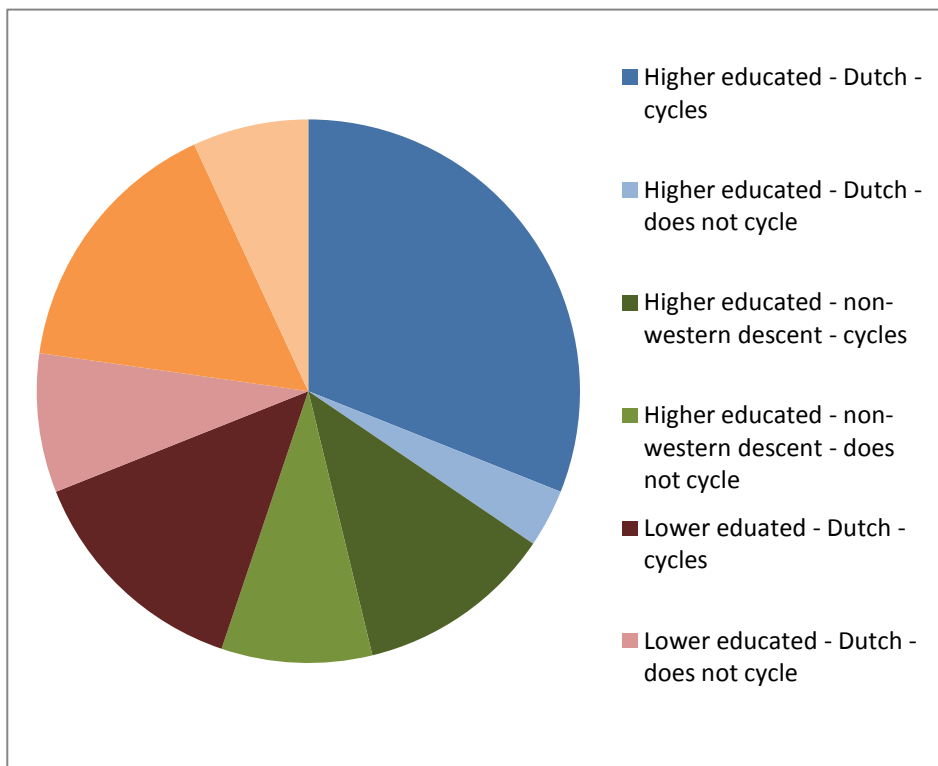
⁸ The Dutch education system is structured in levels. After secondary school one can choose, depending on its abilities, for a study on middle level *MBO*, a study on a higher level *HBO* or a study at scientific level *WO*.

educated was 1.24 (Mean 1.24 and Standard Deviation 0.43). This indicates that higher educated cycle more but this difference is not statistically significant.

LEVEL OF EDUCATION, AND ORIGIN RELATED TO CYCLING

Often is thought (Hendriks, 2012 and Bureau Onderzoek en Statistiek, 2011) that non-Western immigrants who participate(d) in higher education (*HBO* and *WO*) cycle more than non-Western immigrants who participate in other education (for instance *MBO*). Thought is that their peer group (native Dutch students) influences their behaviour. In other words the chances that one of non-Western origin will cycle in higher education is bigger than one who participates in lower education. When calculating the previous given findings, on origin and education, by a logit analysis this claim can be tested.

As mentioned 152 respondents answered that they participate or participated in a *MBO*, *HBO* or *WO* study (appendix). 82 of Dutch origin (*MBO*: 32, *HBO*: 35, *WO*: 15) 63 of non-Western origin (*MBO*: 33, *HBO*: 26, *WO*: 4) Western immigrants are left out. 62.5% (20 of 32) of the Dutch *MBO* respondents answered that they cycle. 90% (45 of 50) of the Dutch respondents who participate(d) in higher education answered that they cycle. The difference between both levels of education are obvious, higher educated Dutch cycle more. According to the claim respondents of non-Western origin attending (or attended) higher education would therefore cycle more than *MBO* respondents of non-Western origin. When calculating is found that this is not the case. 69.7% (23 of 33) of the non-Western *MBO* respondents answered that they cycle. 56.67% (17 of 30) of the non-Western respondents who participate(d) in higher education answered that they cycle. This indicates that, respondents of, higher educated non-Western respondents cycle less than *MBO*-ers of non-Western origin.



	DUTCH		NON-WESTERN	
	cycles	does not cycle	cycles	does not cycle
Lower level of education	20	12	23	10
Higher level of education	45	5	17	13

Chart 11 & Table 3: Respondents cycling behaviour linked with their origin and highest level of education.

These multiple independent variables are

simultaneously included in the logit model. Goal of this model is to predict the chances that someone cycles. This is done by means of the following characteristics of the respondents origin (non-Western or Dutch) and

level of education (low or high). When calculating this in SPSS is found that origin ($p = 0.16$) and level of education ($p = 0.26$) turn out not to be independent predictors of bicycle use. Origin shows an odds ratio of 1.54, level of education an odds ratio of 0.66. But both are not statistically significant what might indicate that the findings are a coincidence.

When the independent variable influences the dependent variable these are called main effects. What can also be calculated is the interaction between the variables. In statistical research, interaction is used for situations where the effect of an independent variable on a dependent variable is influenced by a third variable. In this research we are interested in the impact of one's level of education and origin (both independent variables) on cycling (the dependent variable). When calculating this in SPSS is found that respondents with the value of zero on the variable cycling (these are the one's who cycle) the effect of (a lower) education is negative (-3,06), has an odds ratio of 0,47 statistically significant (0,005). For the non-cyclists is found that the effect of (a lower) education is smaller (-2.384). What indicates that there is a statically significant different effect of education for cyclists and non-cyclists. In addition, also is found that respondents with the value of zero on the variable cycling (these are the one's who cycle) the effect of origin is negative (-2,054) and statistically significant (0,04) as well. For the non-cyclists is found that the effect of origin is smaller (-0.378). What indicates that there is a statistically significant effect of origin for cyclists and non-cyclists. In plain words, the odds that one will cycle is reduced when one is of non-Dutch origin, it is further reduced when one is higher educated.

5.2 THE CASES

The findings above are a combination of the outcomes of the survey among inhabitants of Hoograven and Boschveld. In this section these findings are split. To indicate whether there are differences between the two neighbourhoods. The section starts by giving the most important differences before in paragraph 5.2.2 and 5.2.3 more detailed outcomes are given.

As mentioned before, inhabitants of Hoograven and Boschveld was asked how often they cycle. Respondents could answer on a scale from one to four. One means every day, two every other day, three once a week and four indicates less often. So, the higher the number the lower the bicycle use. Calculating the responses in SPSS indicates that the average given answer in Hoograven was 1.6 (Mean is 1.6 and Standard Deviation is 0.91). The average answer of respondents in Boschveld was 1.82 (Mean is 1.82 and Standard Deviation is 1.07). What means that respondents in Hoograven cycle more often. This difference is however not statistically significant as Students t-test indicates ($t(116,12) = 1,44, p = n.s.$).

Respondents was also asked what the maximum distance is they travel per bicycle. One could answer on a scale from one to six. 'One' denotes a distance up to 1 kilometre, 'two' denotes up to 2.5 kilometre, 'three' dennotes up to five kilometre, 'four' denotes up to 7.5 kilometre, 'five' denotes up to 10 kilometre and 'six' denotes a distance of 10 kilometres and more. So the higher the number, the more kilometres one cycles. The average given answer in Boschveld was 4.03 (Mean is 4.03 and Standard Deviation is 1.46). Respondents in Hoograven answered 3.87 on average (Mean is 3.87 and Standard Deviation is 1.44). This indicates that

respondents in Boschveld cycle larger distances. This difference is however not statistically significant ($t(195) = 0.74$, $p = n.s.$).

Respondents was also asked how often they are en route (in other words travel). Respondents could answer a scale from one to four. One indicates every day, two indicates that one travels one's every two days, three indicates one's a week and four indicates less than once a week. So the higher the answer, the less often one is en route. Results show that the average answer given in Boschveld is 1,12 (Mean is 1.12 and Standard Deviation is 0.40). The average given answer in Hoograven is 1.04 (Mean is 1.04 and Standard Deviation is 0.20). This indicates that Hoograven is more often en route. This difference is however not statistically significant ($t(59.83) = 1.13$ $p = n.s.$).

5.2.1 HOOGRAVEN

In Hoograven a total of 177 inhabitants were questioned. The survey among visitors of the Smaragdplein and 't Goylaan in Hoograven indicates that 130 (73.45%) cycle. Visitors were asked on several days in July 2012 whether they wanted to participate in a study to concerning cycling in their neighbourhood. Responses weren't always positive and not everybody wanted to make time to answer the short questionnaire as the reaction of this woman indicates "neeeee, wat interesseert mij die fiets nou?! Doe!". However altogether 177 inhabitants of Hoograven were prepared to participate. The respondents are a diverse group, just like the neighbourhood they live in. Most of the respondents, 99 (55.93%) , are native Dutch. 42 (23,73%) are of Moroccan origin, fifteen (8,47%) are of Surinamese origin. Then there are some smaller groups who qualify as inhabitants of non-Western origin, what make the total number of non-Western respondents 71 (40.11%). Of all these people 130 answered that they cycle. Others do not cycle for different reasons, for instance a woman of Dutch origin answered that she prefers other modes of transport as she hates cycling "ik heb er [fietsen] een gruwelijke hekel aan".

CYCLISTS

Their destinations and the reason they cycle are diverse, twenty (15.38%) answered that they use it to cycle to work, fifteen (11.54%) use it to go shopping, nine (6.92%) use it to cycle as a way of recreation. Others (seven, 5.38%) use it go to family and friends, the inner-city (five 3.85%), going to sport (3.08%). Half of the cyclists however use it for a combination of the above mentioned. Maybe not surprising, but the distance they cover varies. Most (40 30.77%) heard response was that their bicycle trip is up to five kilometre. One (0.77%) only cycles a kilometre, twenty three (17.69%) cycle up to 2,5 kilometre. Twenty two (16.92%) up to 7.5 kilometre, sixteen (12.31%) cycle up to ten kilometre and twenty eight (21.51%) cycle ten kilometres or more. 84 (64.62%) cycle every day, twenty (15.38%) every other day, another twenty (15.38%) cycle once a week and six (4.62%) cycle less than once a week. The reasons people cycle vary. A 23 year old native male cycles because parking your bicycle it is cheaper than parking your car "*fietsen is zuinig, parkeerkosten zijn hoog*". Instead of a 82 year old native woman who uses her bicycle because she finds it a delight "*fietsen is heerlijk*". All answers together Hoograven cycles because it is convenient (35 times, 26.92%), healthy (twenty four times 18.46%), fun (fourteen times, 10.77%), cheap (eight times, 6.15%), fast (eight times, 6.15%), because it is an environment

friendly mode of transport (two times, 1.54%). 37 respondents claim that it is a combination of the above mentioned that motivates them to cycle.

NON-CYCLISTS

A total of 48 (27.19%) respondents in Hoograven do not cycle, their reasons vary. Many (nineteen) claim that other modes of transport are more comfortable and *gemakkelijker*. Other reasons varied from a bicycle with a flat tire, or the weather as this young woman of Dutch origin told “slecht weer is een reden om niet te gaan fietsen”, a young woman of Moroccan descent answered that she prefers a scooter “een scooter is makkelijker in de stad” a young Dutch woman simply told “ik heb geen zin om te fietsen” (I do not feel like cycling). Many of the respondents answered that they do cycle but prefer other modes of transport for daily use. When asked what policy would make them cycle more, many could not think of any. But when thinking longer they reacted that when the usage of their favourite mode of transport, most often the car, was restricted they would cycle more. The reactions to what they perceive as a restriction varied from a further rise of gasoline prices, higher parking costs to a less friendly infrastructure.

EDUCATION

In Hoograven was found that indeed higher educated cycle more. Found was that approximately one out of six higher educated do not cycle, from the lower educated this is approximately one in three. 39 (seventeen of Dutch origin and 22 of non-Western origin) respondents told that a study at MBO level was their highest form of education. Eleven of them do not cycle, of whom five are of non-Western origin. The 63 higher educated are predominately of Dutch origin (43, versus twenty of non-Western origin). Eleven of them do not cycle of whom seven are of non-Western origin. This indicates that higher educated non-cyclists more often are of non-Western origin. Among the lower educated Dutch slightly cycle less.

5.2.2 BOSCHVELD

In Boschveld are a total of 109 inhabitants questioned. 67 (61.47%) of them cycle as a survey among visitors of the Van Coehoornplein indicates. On several days in July 2012 visitors of the Van Coehoornplein were asked whether they wanted to participate in a study concerning cycling in their neighbourhood. Responses weren't always positive and just as in Hoograven not everybody wanted to cooperate. However altogether a total of 109 inhabitants of Boschveld were willing to participate. Most of the respondents are of Dutch origin, 46 (42.2%). Then there are some smaller groups who qualify as inhabitants of non-Western origin, what make the total number of non-Western respondents 53 (48.62%), of whom most are of Moroccan origin. But this inhabitant group is still somehow underrepresented, because many of them did not want to cooperate, (for unknown reasons). A teenager of presumably Moroccan origin explained that he hates the bicycle “nee ik doe niet mee aan je onderzoek. Klotenfiets”.

CYCLISTS

However there were people who did want to cooperate. And of them as mentioned 67 (61.47%) answered that they cycle, their destinations are diverse. Most of them (eight 11.94%) use it to cycle to the city centre. Six (8.96%) others use it to cycle to work, smaller numbers (five 7.46%) use it for recreation or doing groceries (four 5.98%). Thirty cyclist use the bicycle for a combination of the above mentioned reasons. The distances they cover varies and is often motivated by the weather. A teenager of Dutch / Moroccan origin answered that he cycles every day but would cycle more and a greater distance if it was not always raining. He claims that cycling is influenced by the weather “fietsen wordt beïnvloed door het weer”. He might be right as a man of Afghan origin claims that his kids do not cycle in the rain. However sixteen of the respondents answered that they cycle more than ten kilometres at a time (of whom mostly elderly). Twelve (17.91%) cycle up to ten kilometre, eight (11.94%) cycle up to 7.5 kilometre, twenty (29.85%) up to five kilometre, and eleven (16.42%) up to 2.5 kilometre. The majority, 38 (56.72%), cycles every day. But as mentioned for some this is influenced by the weather. Ten (14.93%) of the respondents cycle every other day. A rather big group (twelve 17.91%) cycles only once a week. Another seven (10.45%) cycle less often. The reasons to cycle vary. Fourteen (20.9%) of the respondents cycle because they find it a convenient mode of transport. Thirteen (19.4%) because they perceive cycling as healthy. Fast, fun and cheap are other heard options. Twenty-two (32.84%) cycle because of a combination of the above.

NON-CYCLISTS

Nineteen (17.43%) of the respondents in Boschveld told that they do not own a bicycle which they can use. However not owning a bicycle is not the only reason not to cycle, for example a woman of Dutch origin claims her husband is simply too lazy to cycle. Others had different reasons, as a man of Iraqi origin argues there is no need to cycle as he owns a drivers licence “het is niet nodig, ik heb een rijbewijs”. A man of Surinamese origin argued that cycling is for kids “fietsen is voor de kinderen”. Both seem cycling not to perceive as a normal thing to do. These men are amongst the 43 (39.45%) respondents in Boschveld who do not cycle. For eight of the non-cyclists (18.6%) not owning a bicycle is the reason they do not cycle. Others (ten, 9.17%) do not cycle because they perceive their destination too far away. A bad health is for six of the non-cyclists (13.95%) the reason not to cycle. Several of the non-cyclists, the one’s who came by car, pointed out that they chose the Van Coehoornplein because there is always plenty of parking space and no fees apply. Notable is that 47.17% (25 out of 53) of the respondents of non-Western origin in Boschveld answered that they do not cycle. In Hoograven only 26.76% (19 out of 71) respondents of non-Western origin answered that they do not cycle.

EDUCATION

In Boschveld was found that higher educated does not mean that one cycles more. Twenty-six answered that a study on *MBO* level is the highest form of education. Seventeen answered that a study on HBO or WO level (higher education) is their highest form of education they participated in. Of the MBO students fifteen cycle (nine of Dutch origin, six of non-Western origin), eleven do not cycle (six of Dutch origin, five of non-Western origin). Ten respondents who participated in higher education answered that they cycle (six of Dutch origin, four of non-Western origin) the seven left answered that they do not cycle (one of Dutch origin, six of non-

Western origin). This does not only indicate that higher educated respondents do not cycle more, as often is found in other research (Van Olden, 2012). It also indicates that higher educated respondents of non-Western origin do not cycle much more than non-Western respondents on MBO level as often is thought (Hendriks, 2012). Therefore Boschveld differs with findings from previous research (that indicates that higher educated cycle more).

5.3 CONCLUSION

The general survey outcomes make clear that Dutch respondents cycle more often and over larger distances. Respondents of non-Western origin cycle less often and fewer kilometres. Respondents of non-Western origin often (almost two out of three) do not cycle more than five kilometres. In contrast to respondents of Dutch origin. Answers of the Dutch respondents indicate that only one out of three does not cycle more than five kilometres. Remarkable is that of the non-cyclers, half chooses the car as mode of transport. These car users are predominately of non-Western origin. What is also striking is that higher educated cycle more than lower educated. But respondents of non-Western origin do not cycle more than those who participated in a study at a lower level, this is opposed to findings of previous research.

On neighbourhood level, the answers of the respondents indicate that cycling use in Hoograven is higher than in Boschveld. However respondents in Boschveld cycle more kilometres, and more often as a form of recreation. In Hoograven a quarter of the respondents answered that cycling suits their way of live, in Boschveld this was only 16.5%. This might indicate that Hoograven's cycling culture is stronger than in Boschveld. In addition the percentage of respondents that does not cycle is higher in Boschveld than in Hoograven. In Hoograven 27.19% does not cycle, in Boschveld this is 39.45%.

These findings address new questions. How is it that in Hoograven is cycled more than in Boschveld? It might have several reasons. But most important might be that a quarter of all respondents in Hoograven said that cycling suits their way of life. This indicates an active way of live and a cycling culture. In Hoograven only 16.5% gave this answer. In addition respondents in Boschveld more often have a reason not to cycle. The destinations of the respondents are further away (in kilometres) and non-Western immigrants more often does not own a bicycle. Another explanation might be that the unemployment rate is higher among the inhabitants of Boschveld, what makes that they are less often en route. Another question that can be asked is to why respondents of non-Western origin do not cycle more as less higher educated respondents (as other research concludes the opposite)? The higher educated come from both neighbourhoods, Hoograven twenty (of whom thirteen cycle) and Boschveld 10 (of whom four cycle). This indicates that seventeen higher educated cycle, thirteen do not. It might be that the peer group effect that goes out of participating in higher education is less strong as the peer group effect that goes out of the original social environment (family). *Id est* in shaping of the habitus one's close social surroundings seems more important.

Cycling seems to have a different position in the habitus of a native Dutch than of a non-Western immigrant. How is that possible? Even after being in the Netherlands for years and years? Bourdieu might have an answer to this question. Therefore this question will be answered in the theoretical conclusion of this research.



Figure xxx: Parked bicycles on a bridge over the “Oude Gracht” Utrecht (own work).

CHAPTER 6. CONCLUSION

This final chapter overviews the research. In this chapter, the research questions are answered, and are related to the theory. Then the conclusion of this research is drawn. The last section reflects on the research done and gives recommendations for the future.

6.1 ANSWERING RESEARCH QUESTIONS

Cycling is very common in the Netherlands. It is encouraged by (local) government, as it is recognized as a mode of transport that is healthy and does not damage the environment. However, not everybody cycles. At the start of this research, questions were asked to why that is, these questions are answered in this chapter.

Are there differences in bicycle use between native Dutch and non-Western immigrants?

According to this research, the answer is yes. Respondents from Boschveld and Hoograven of non-Western origin indicate that there are statistical differences with the cycling behaviour of the native Dutch respondents from Boschveld and Hoograven. Non-Western respondents cycle less often, and they cycle over shorter distances than Dutch respondents. Both differences are statistically significant. These findings endorse findings of earlier research. But important to note is that non-Western immigrants do cycle.

What causes these differences?

Many of the non-Western respondents do not cycle do this because they perceive the bicycle as uncomfortable. Or actually, other modes of transport are perceived as more comfortable, this is the number one reason not to cycle given by respondents in Hoograven. In Boschveld the reason not to cycle was more complex and a combination of several factors. Other reasons for non-Western respondents not to cycle are the (perceived) distance and not owning a bicycle. This research indicates that cycling is widely accepted among all respondents in this research. There are no proofs that cycling is perceived as inappropriate or status-reducing within certain cultures. In other research, these were two of the explanations for the difference in bicycle use between non-Western and Dutch respondents. These findings therefore do and do not endorse findings from previous research:

- Van Boggelen (2006) states that youth of non-Western origin cycle less compared to their native peers. This research endorses this claim.
- Research done by Hertog et al (2006) found that higher educated inhabitants of Amsterdam cycle more than lower educated inhabitants and non-Western immigrants. Hertog et al (2006) also state that non-Western immigrants do not go cycling in their spare time or for trips to the local supermarket. This research done in Utrecht and 's-Hertogenbosch does not endorse the findings that higher educated cycle more.
- Verhoeven (2009) concludes that main reasons for non-Western immigrants not to cycle are bad weather, a feeling of insecurity in traffic and the distance to be bridged is perceived as too far. This study found other reasons to why one does not cycle. Verhoeven also found that the status of the bicycle is not really an issue and does not make that one will not cycle. This research endorses that claim.
- Research done in Amsterdam Nieuw West by Van Olden (2012) indicates that non-Western immigrant women, teenagers and kids do not cycle. Reasons are fear and a bad image. This research found other reasons to why one does not cycle, fear and image are not main reasons.

The research done by Van Olden concluded that the bicycle suffers a bad image and because of this image causes that less youngsters use a bicycle to go from A to B. They perceive the bicycle as something that affects your status negatively. In this research there is no evidence found that youngsters cycle less because a bicycle affects one's status. However (non-Western) youth in Hoograven and Boschveld does indeed cycle less (below average). This is because there are modes of transport available that they perceive as more comfortable. But important to acknowledge, and maybe the most important finding of this research, non-Western inhabitants of both Boschveld and Hoograven do cycle. They just have a different attitude towards the bicycle and that can be explained as the bicycle might not have been introduced to them when they were young.

Can these differences be overcome (by policy)?

Many studies, including this one, conclude that youth and inhabitants of non-Western origin cycle less than average. Current policies seem not to be effective in overcoming this. This research found that respondents of non-Western origin cycle less often and over shorter distance. But both respondents of non-Western origin as respondents of Dutch origin could not indicate bicycle policy (infrastructure, marketing or social tools) that would make them cycle more. Four out of five respondents of non-Western origin have access to a bicycle that they can use. Most are able to ride a bicycle, cycling is perceived as normal and when in the Netherlands there are no cultural issues that make them not cycle. Cycling infrastructure was by many perceived as good. Proof that the bicycle affects one's status negatively is not found. So the non-Western immigrant has a bicycle, knows how to ride it and indeed rides it, but less often and over shorter distances as the Dutch do. How should that difference be overcome? The answer to this question is twofold.

The current bicycle policies, predominately focus on constructing new bicycle paths, upgrading others and discouraging car-use. This should be continued. As respondents of both Dutch and non-Western origin perceived infrastructure as good but many argued that they would cycle more when car-use would become more expensive or less easy.

The successes of current soft bicycle policies, who focus on influencing one's perceptions towards cycling are unclear, as the effects of marketing on less cycling minded adults are not known and the successes of the cycling lessons for adults are doubtful. More research to make these successes and also failures clear is recommended and much needed. As well as a change in policy. Current soft policy only focuses on introducing the bicycle into the habitus of one who is sometimes of adult age. Introducing the bicycle into one's life is however not enough to make one use the bicycle. Going cycling asks for a change in behaviour that cannot be achieved simply by telling how environment-friendly or healthy cycling is as there are practical reasons that make other modes of transport more suitable. These soft measures should therefore focus more on the youth. The youth grow up in a society where the bicycle is present. Van Olden (2012) concludes that children of non-Western origin do not use the bicycle to go to school. As well, that their parents do not teach them how to cycle. It is therefore no surprise that youth of non-Western origin cycles less. Current policies will not overcome the differences in cycling that become visible when one is of adolescent age, but actually start at a younger age. Let one grow up with a bicycle so this bicycle becomes part of one's habitus.

6.2 THEORY

In the Netherlands cycling is that normal that it appears to be in the habitus of the Dutch. The Dutch bring their bicycles with them and you'll find them everywhere as Figure 1, 2, 3, 4 and 6 might indicate. The findings of this research confirm that cycling is done by many, is perceived as normal and done automatically. This is different with respondents of non-Western origin. They do perceive it as normal but cycle less often, over fewer kilometres and as Figure 5 might indicate less often have a bicycle in front of their house.

Cycling seems to have a different position in the habitus of a native Dutch than of a non-Western immigrant. How is that possible even after being in the Netherlands for years and years? Generally speaking is cycling for a Dutchman "*gewoon*" i.e. common, normal, usual and everyday. It is that embodied history that Bourdieu speaks about in his book the *Logic of Practice* (1990). It is so normal that most people are not conscious of the history of the practice and are unaware of how extraordinary it is for newcomers. The true reason that the Dutch cycle is forgotten. Cycling became a sort of *sens pratique* as Bourdieu mentions in *The Logic of Practice*. The reason to why the Dutch cycle therefore seems actually to be pre-given. It was originally motivated by the fact that the country was flat, urban density was high and the protestant ethic perceived cycling as the correct thing to do. It continues today most of all because at a young age one is taught how to cycle and then is told how to use it to go to school, football practice and music repetitions. It is part of daily routine. For non-Western immigrants coming to the Netherlands this is different. The bicycle is less common in their country of origin and probably there was nobody that put training wheels on their (first) bicycle. It is therefore understandable that they cycle less often and fewer kilometres when in the Netherlands. Compared to their country of origin, they probably cycle much more than before. That the next generations of non-Western immigrants cycle less is understandable as well. They grow up in a country that is cycling minded, but the habitus they grow up in isn't. Introducing the bicycle (by social policy) to the different generations of non-Western immigrants does not directly mean that they use the bicycle for their transport. Other options are more practical but more importantly often more familiar within the habitus and feel more natural. *Id est*, introducing cycling in an unconstrained manner does not mean that all cycle. The immigrant has a habitus in which cycling is not perceived as normal "*gewoon*", this influences his practices. He got acquainted with other modes of transport and adopted them unconsciously in his habitus. When in the Netherlands, the act of learning how to cycle does not make the other habits go away. Bourdieu seems to be right when he states that as mentioned before "any dimension of habitus is very difficult to change" (Bourdieu, 2002, p. 29). Bourdieu (2002) states as well that the habitus "may be changed through this process of awareness and of pedagogic effort" (Bourdieu, 2002, p. 29). That would be that one will go cycling after one attends cycling lessons or is influenced by marketing, in this research, there is no evidence found that this is the case. There might be participants whose behaviour does change thanks to the cycling lessons, but figures about the success are not known. The current policies focus on simply introducing newcomers to the field of cycling, talking about the bicycle in the *inburgeringscursus* and learning 50-year olds how to cycle during the cycling lessons. It does however not cause a change in behaviour, a change in one's habitus.

The reasons to participate in the courses are that the bicycle is less expensive than car and bus, and now a woman's husband can use the car. These are legitimate reasons to cycle. But is it up to society to pay for

this? Or even pay for lessons of when successes are unknown and even the ones who organize it doubt the value of the lessons. The usefulness of the cycling lessons are heavily debated. Even an organizing party as *De Fietsersbond* claims that there are many drop-outs, and after the lessons, bicycle use does not increase. Both claims actually might be quite logical. Lessons are often free (for participants), what makes that the barrier to participate low. But the barrier to drop out is just as low. Even when successful completion of the course does not ensure that one will cycle, as knowing how to ride a bicycle does not mean that one will ride a bicycle. Knowing how to ride a bicycle is caused by acquiring skills, learning how to keep your balance, pedalling etcetera. Actually riding a bicycle is caused by a change in behaviour, for example, before one used the bus now one uses the bicycle. This means that one has to know how to ride a bicycle, has access to a bicycle and in the end, wants to ride a bicycle. But is this the case for adults of non-Western origin who learned cycling in the Netherlands?

When I fall of my bicycle or it gets stolen, it does not mean that I will stop cycling. I will buy a new bicycle and cycle the next day. As Kuipers (2010) argues "*je neemt gewoon de fiets. Iedereen fietst. Je zou niet weten hoe het anders moet*". Kuipers (2010) indicates that cycling is "*gewoon*" i.e. common, normal, usual and everyday. This means that I really do not know what I should do without my bicycle. But is this the same for an adult of non-Western origin whose bicycle was stolen? The bicycle might not have that dominant position in his or her habitus. Cycling is not usual for the non-Westerner and a cycling course will not change this. And as Bourdieu states, habitus makes actors to choose behaviour which appears to be the most suited to achieve a desired outcome. I regard the cycling lessons useful to get acquainted with riding a bicycle. I do not find them useful to make one cycle, this asks for a change in behaviour that is not caused by the cycling lessons. Having the capital to cycle, does not mean using that capital.

Bourdieu identified three types of capital: economic, cultural and social. Economic capital is in people's bank accounts, cultural capital is inside one's head and social capital has to do with a person's relation to others. All three are important regarding cycling, and as stated before, capital is the resource that one takes with one. Bourdieu stressed that people should not put too much emphasis on the importance of capital in the financial meaning, but economic capital is of influence in one's cycling behaviour, because ownership of a bicycle or the access to a bicycle is of importance. It turned out that of the non-Western respondents four out of five have access to a bicycle. What indicates that the first criteria is (in 78% of the cases) met. The research also indicates that most people perceive cycling as a normal thing to do and only fifteen percent has a opinion about cycling that can be explained as negative. The bicycle is therefore socially accepted as an appropriate mode of transport. Cultural capital is the last form of capital identified by Bourdieu. Cultural capital in this research indicates one's ability to cycle. This research indicated that only a few people cannot cycle, the most common reason was one's health. The forms of capital as identified by Bourdieu are therefore met by most of the respondents who participated in the survey.

This research found that there are differences in the distance one cycles and how often one cycles. This too can be explained by using a concept of Bourdieu: field. The field is the setting in which agents and their social positions are located. Activities within the field are constructed by external limits of rules and regulations but also by one's interpretation of what a field is asking. These interpretations are influenced by one's habitus

and whether one is “successful” within the field depends upon one’s capital. Newcomers in Dutch society come from a field (their country of origin) where cycling is not practiced much, to a field (the Netherlands) where cycling is the standard. Cycling is not within their habitus as they are not familiar with cycling as mode of transport. But over time, people might obtain the capital that is necessary to cycle. They acquire the social (accepting it as an appropriate way of transport), cultural (learn how to cycle) and economic (get a bicycle) capital the field is asking for.

Habitus is open for change, according to Bourdieu (2002) through a process of awareness and pedagogic effort. In that line of thought are cycling lessons understandable. Navarro (2006) states that one’s habitus might also change under unexpected situations and over a long historical period. Changing one’s habitus (and its subsequent actions) is therefore difficult. The unconstrained manner in which it is tried now therefore will take a while. Would it therefore not make more sense to introduce the bicycle before the habitus is fully formed?

6.3 CONCLUSION

The goal of this research *to contribute to more knowledge on how and if one’s origin influences the usage of and the attitudes about the bicycle and whether this can be influenced through policy* was achieved. Yes, one’s origin is of influence in one’s bicycle use. But not necessarily because one is German, French, Dutch, Turkish, Moroccan or Chinese, but because within certain cultures the bicycle is less familiar and not so much within the habitus. Making people acquainted with the bicycle, from an early age, should overcome the differences. When this is combined with the constructing and upgrading of bicycle infrastructure, and slight demotivation of car infrastructure, I am confident that cycling will get a more dominant place in the habitus of (descendants of) non-Western immigrants in the Netherlands.

As stated in the first chapter of this thesis, this research also has a secondary goal, and that is to test whether one’s level of education is related to cycling. When the outcomes regarding the level of education are examined a few things become evident. Firstly the respondents’ answers indicate that the higher educated cycle more than the lower educated, as about one third of the respondents of whose highest level of education is *MBO* answered that they do not cycle. About one fourth of the respondents of whose highest level of education is *HBO* answered that they do not cycle and only one eighth of the respondents of whose highest level of education is *WO* answered that they do not cycle. Differences also exists in how often one rides one’s bicycle. Half of the *MBO-ers* who cycle do this every day. Of the *HBO-ers* this is 65% and of the *WO-ers* this is 70%. Therefore, the secondary goal of this research, which is to test the link that was found in earlier research between one’s level of education and cycling can be endorsed. However higher educated respondents of non-Western origin do not cycle more as non-Western respondents who participated in a study on *MBO* level. Thoughts by Hendriks (2012) and claims by *Bureau Onderzoek en Statistiek* (2011) who argue that higher educated non-Westerns cycle more than lower educated, cannot be endorsed.

6.4 RECOMMENDATIONS AND REFLECTION

Based on the findings above, this section gives recommendations for the future. As stated, most inhabitants know how to cycle. However not everybody chooses the bicycle as his/her mode of transport. This has different reasons, the most important one is that other modes of transport are more comfortable and / or convenient. Other reasons are: the distance to be covered is perceived as being too far, and one's health is perceived too bad to cycle. When it is believed that everyone *should* cycle these perceptions should be overcome. To make this possible, more research, actions by *De Fietsersbond* and changes in policy are needed.

But first of all, these recommendations are made after a research that took a bit longer than I expected. I might have underestimated the complexity of Dutch cycling. However this was not at the expense of the research, it gave the opportunity to experience an organisation as *De Fietsersbond* to the fullest. As my research internship (from April until August 2012) ended before I finished this research, it also gave the opportunity to think things through outside the office, without being (subconsciously) driven by factors in the office. These aspects helped me with drawing up conclusions and recommendations.

When I started this research I thought that Dutch cycling policy was in need of a change, from the idea that one will cycle when there is a bicycle path. I thought that when one does not know how to cycle or has negative ideas about it, one will not cycle. I figured that cycling lessons to learn one how to cycle and change one's ideas about cycling could help in making inhabitants of non-Western origin cycle more. During the research, my ideas changed. Can we expect that one who didn't cycle for decades (for whatever reason) and is introduced to the bicycle by means of marketing or social policy (i.e. in an unconstrained manner) will cycle (as much as the Dutch do) afterwards? Practice shows that this is not the case. I experienced how most respondents of non-Western origin are able to cycle, do know how to cycle, do not think negatively about cycling and therefore cycle. They, however, do not choose it as so much as the Dutch do. But is it really a choice? A choice assumes "a conscious and deliberate decision, which also implies the awareness of contingency and of the alternative" (Ernste, 2010, p. 229), and thus the awareness of the possibility to choose the bicycle for all different kinds of trips. For some of the non-Western immigrants the bicycle is not part of the daily decision process as it is blocked by a "threshold of indifference" (Ernste, 2010, p. 229) that is raised by (Bourdieu's notion of) the habitus. "Bourdieu views the human being as neither a powerful subject nor an object driven by powerful external processes, but as a combination of both" (Ernste, 2010, p. 230). He emphasises the habitus as a "cultural unconsciousness" (Bourdieu, 2007, p. 123) in which disposition takes the place of intention. It implies an unconscious assessment of one's options and makes that the habitus enables practices but disables practices. Bourdieu does not answer the question how to overcome this threshold, i.e. change one's habitus, which might be one of his shortcomings. This research found that in the case of cycling by non-Western immigrants the habitus is changed (at least for a part and by the majority of the group). Therefore Bourdieu's theory might not give an answer to how cycling by non-Western immigrants can be increased. We should find a method to break away from Bourdieu's notion of habitus.

De Certeau (1984) did this by conceptualising the afore-mentioned indifference "as a tactical aspect of the practice of everyday life" (Ernste, 2010, p. 230). He sees practices not as the pure reproduction of structures by means of one's habitus, but partly as the result of deliberate decisions enforced upon the actor.

In that sense he distances himself from Bourdieu's notion of habitus. He argues that one changes one's behaviour by little changes to one's "frame of reference" (Ernste, 2010, p. 232). These changes can be enforced in several ways, but are part of a bigger process of re-framing our action in space. One way in which this can be done is by spatial planning. As

"spatial planning is not just about planning physical space but about planning the spatial practices of people and organizations" (Ernste, 2010, p. 88).

Spatial planning might be the answer to why (younger) non-Western immigrants only cycle for shorter distances. This research found that inhabitants of non-Western origin indeed cycle less. Not because they do not know how to cycle or because of negative attitudes toward the bicycle, but predominately because other modes of transport are said to give more comfort. First, it should be found out what that perceived need of comfort is, because improving comfort for cyclists is one of its main points in Utrecht's cycling policy. So, is local government investing in a form of comfort that is not valued by the non-cyclists? I just argued that non-Western immigrants cycle less (than native Dutch), this however indicates that they do cycle. This research found that cycling done within the neighbourhood is perceived as positive, quick and convenient. This is mainly because of pro-cycling and contra-car infrastructure. So spatial planning seems to cause a difference on the neighbourhood level, it succeeded in letting the non-Western immigrant making a choice (a conscious and deliberate decision) between the bicycle and other modes of transport. If this is possible on the neighbourhood level, why is it then not possible on municipal level? Several respondents said that they would cycle more when car use would become more expensive due to parking fees and gasoline prices. Continue the pro-cycling infrastructure and combine it with discouraging car use, as respondents seem affected by these actions. But they are also economically legitimate. The car is a mode of transport that costs society around 50 euro cents per kilometre in contrast to cycling that costs only eight cents (Cycling Embassy of Denmark, 2012). In bad economic times, cycling seems quite logical.

Differences could also be created by more cultural (or maybe actor-centred) approaches. *De Fietzersbond* is determining its position in Dutch cycling society. It is questioning cycling related policy and investments. It questions if cycling lessons for adults are useful, as it seems that they do not cycle after participating in the expensive course. However, teachers from both *De Fietzersbond* and *Landelijk Steunpunt Fiets* (active in 's-Hertogenbosch), a community worker and participants involved in Hoogravens cycling lessons and governmental workers from 's-Hertogenbosch are positive. The picture, therefore, is mixed, so there are still many questions about these lessons. These questions could not be answered in this research as it focused more on the neighbourhoods as a whole and not so much on the participants of the lessons. And because of the duration of this study, it was not possible to do pre and post-tests. Tests like this could answer questions that cannot be answered in this research. These tests should also give more accurate insights in the attitudes of the participants, their partners, children and others in their surroundings. Did their attitude change after participating in the course? Along with that, a test could be done to examine the effectiveness of charging one for participating in the courses. Currently, society often pays for the lessons provided by local governments. Although society might benefit when one cycles more (after participating in the course), it is predominately the participants themselves who benefit. They are more mobile, save on gasoline, save on parking fees and might

even become in better shape. But charging money for the course might have one main benefit. Only the ones who really want to succeed and afterwards use their bicycle will participate. In addition, a pre and post-test of a course that is paid by the participants will give useful insights. A pre and post test is also a suitable instrument to indicate whether one relapses in old behaviour, after successful finishing the course. Pre- and post-tests could also indicate which policies are more successful, i.e. hard or soft. In this way, it can be determined whether certain changes result in a higher number of cyclists. For instance, it might be a good idea to test one's cycling behaviour before a bicycle path is opened and afterwards, and test a woman's attitude towards cycling before she starts a cycling course. Afterwards test if she does ride a bicycle and if not, find out the reason.

The effects of the investments in marketing and social policy (who often focus on larger groups) are unclear. The few figures that are known however conclude that these soft policies are not particularly successful. When I go back to the thinking of Bourdieu, these non-successes actually seem quite logical. These marketing and social policies focus on introducing the bicycle to adults who are less familiar with cycling and sometimes have negative thoughts about it. Telling them that the bicycle is a good (for different reasons) mode of transport will not change their behaviour. They might already know that cycling is environment friendly and healthy, but probably do not care. They have a habitus / long history where the bicycle has no place. This might be because they originate from a country where the bicycle is less used or they simply do not want to cycle. Anyway, they all moved around without a bicycle and that was just fine. Will introducing a bicycle to them in an unconstrained manner change their thoughts on cycling? Will this cause the bicycle to acquire an active place within the habitus? I do not think so. To me, it seems more logical that marketing funds aimed at adults be instead aimed at children. Introduce the bicycle at an early age (into one's habitus). Give cycling lessons at schools, make it part of gymnastics, take them on a biology or geography fieldtrip by bicycle. Let them experience the joy of cycling themselves and do not only tell them how good cycling is. Government funds that now disappear into nowhere, with marketing aimed at adults, could buy bicycles that can be loaned to schools (for kids whose parents did not buy them a bicycle). Let them become more mobile and give them the opportunity to receive stimuli that they do not experience without a bicycle. But above all make the bicycle normal, for both trips inside as outside the neighbourhood.

To recapitulate, these recommendations are given;

- (more) research on the differences in the perceived cycling comfort and ease,
- continue improvements in bicycle infrastructure and discouraging of car use,
- (more) research on the *succes van de fietsles*, and if the proposed changes in the cycling lessons are successful,
- let soft policy focus more on youth. Introduce the bicycle at an early age, so the bicycle gets an active role within the habitus.

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APPENDIX

- Appendix 1: Survey questions.
- Appendix 2: List of questioned persons and other notes.
- Appendix 3: Outcomes of observations.

APPENDIX 1: SURVEY QUESTIONS

CATEGORIE: (FIETS) BEZIT

1. Beschikt uw huishouden over een fiets die u kunt gebruiken?
 - a. Nee.
 - b. Ja.
2. Hoeveel fietsen zijn er binnen uw huishouden?
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4
 - f. Anders namelijk ...
3. Beschikt uw huishouden over een auto die u kunt gebruiken?
 - a. Nee.
 - b. Ja.
4. Beschikt uw huishouden over een openbaar vervoersabonnement (inclusief NS kortingskaarten) dat u kunt gebruiken.
 - a. Nee.
 - b. Ja.

CATEGORIE: FIETSGEBRUIK

5. Fietst u? (Zo niet kunt u doorgaan met het beantwoorden van vragen in de categorie NIET FIETSERS.)
 - a. Nee.
 - b. Ja.
6. Hoe vaak fietst u?
 - a. Elke dag.
 - b. Om de dag.
 - c. Eén keer per week.
 - d. Anders namelijk ...
7. Wanneer u fietst, waar fietst u dan naar toe?
Meerdere antwoorden mogelijk.
 - a. Werk.
 - b. Studie.
 - c. Familie en of vrienden.
 - d. Kerk of Moskee.
 - e. Winkel en of supermarkt.
 - f. Sport
 - g. Anders namelijk ...
8. Wat is de maximum afstand die u per fiets aflegt?
 - a. 1 kilometer.
 - b. 2.5 kilometer.
 - c. 5 kilometer.

- d. 7.5 kilometer.
 - e. 10 kilometer.
 - f. Anders namelijk ...
9. Wat is de belangrijkste reden dat u fietst?
 - a. Gezonde manier van vervoer.
 - b. Makkelijke manier van vervoer.
 - c. Milieuvriendelijke manier van vervoer.
 - d. Goedkoopste manier van vervoer.
 - e. Snelste manier van vervoer.
 - f. Leuke manier van vervoer.
 - g. Combinatie van bovenstaande.
 - h. Anders namelijk ...
 10. Gebruikt u ook andere manieren van vervoer?
Meerdere antwoorden mogelijk.
 - a. Nee.
 - b. Ja, ik loop.
 - c. Ja, ik gebruik een auto.
 - d. Ja, ik gebruik het openbaar vervoer.
 - e. Ja, ik gebruik een scooter.

U kunt nu doorgaan met het beantwoorden van vraag 16, CATEGORIE UZELF.

CATEGORIE: NIET FIETSERS

11. Waarom fietst u niet?
 - a. Te vaak, te slecht weer.
 - b. De fiets is gevaarlijk.
 - c. De fiets infrastructuur is gevaarlijk.
 - d. Wanneer mijn burens mij zien fietsen lachen ze me uit.
 - e. Mijn geloof schrijft voor dat ik niet mag fietsen.
 - f. Ik kan niet fietsen.
 - g. Ik beschik niet over een fiets.
 - h. Mijn bestemming is te ver weg om te fietsen.
 - i. Anders namelijk ...
12. U fietst niet, hoe verplaatst u zich wel? Meerdere antwoorden mogelijk.
 - a. Ik loop.
 - b. Ik gebruik een auto.
 - c. Ik gebruik openbaar vervoer.
 - d. Ik gebruik een scootmobiel of rolstoel.
 - e. Ik ga de deur niet uit.
13. Hoe vaak verplaatst u zich?
 - a. Elke dag.
 - b. Om de dag.

- c. Eén keer per week.
 - d. Anders namelijk ...
14. Wanneer u zich verplaatst, waar gaat u dan naar toe? Meerdere antwoorden mogelijk.
- a. Werk.
 - b. Studie.
 - c. Familie en vrienden.
 - d. Kerk of Moskee.
 - e. Winkel en of supermarkt.
 - f. Sport.
 - g. Anders namelijk ...
15. Waarom kiest u voor deze manier van vervoer?
- a. Gezonde manier van vervoer.
 - b. Makkelijke manier van vervoer.
 - c. Milieuvriendelijke manier van vervoer.
 - d. Goedkope manier van vervoer.
 - e. Snelle manier van vervoer.
 - f. Combinatie van bovenstaande.
 - g. Anders namelijk ...

CATEGORIE: UZELF

16. Kies welke uitspraak het beste bij u past.
- a. Fietsen is normaal binnen mijn cultuur.
 - b. Fietsen is niet normaal binnen mijn cultuur.
 - c. Fietsen is voor arme mensen.
 - d. Fietsen past bij mijn manier van leven.
 - e. Als ik een vriend zie fietsen lach ik hem uit.
 - f. Mijn collega's vinden het normaal als ik op de fiets naar het werk kom.
 - g. Mijn familie vindt het normaal als ik fiets.
17. Door welke maatregel zou u nog meer fietsen? Meerdere antwoorden mogelijk.
- a. Verbetering in fietsinfrastructuur waardoor het fietsen sneller gaat.
 - b. Verbetering in fietsinfrastructuur waardoor de veiligheid van fietsers wordt verbeterd.
 - c. Verbetering in stallingsmogelijkheden voor de fiets.
 - d. Het aanbieden van fietslessen (bijv. om te leren fietsen en om te gaan met ander verkeer).
 - e. Aanbieden van 'leenfietsen' en 'e-bikes'.
 - f. Anders namelijk ...
 - g. Niet
18. Wat denkt u van uw fietsende buurman?
- a. Hij / zij zal wel geen geld hebben.
 - b. Hij / zij is een milieuactivist.
 - c. Niets, ik vind fietsen iets heel normaal.
 - d. Anders namelijk ...
19. Wat is uw leeftijd?
- a. 0 tot 11.
 - b. 12 tot 17.
 - c. 18 tot 29.
 - d. 30 tot 66.
 - e. 67 en ouder.
20. Wat is uw hoogst genoten opleiding?
- a. VMBO 1-2
 - b. VMBO 3-4
 - c. Havo
 - d. VWO
 - e. MBO
 - f. HBO
 - g. WO
 - h. Anders namelijk
21. Hoe ziet de samenstelling van uw gezin eruit?
- a. Alleenstaand.
 - b. Meerpersoonshuishouden met kinderen.
 - c. Meerpersoonshuishouden zonder kinderen.
 - d. Eenpersoonshuishouden met kinderen.
22. Wat is uw geslacht?
- a. Man.
 - b. Vrouw.

APPENDIX 3: LIST OF QUESTIONED PERSONS AND OTHER NOTES

Interview by telephone with Martijn de Koning.
Anthropologist at Radboud University Nijmegen
May 23rd 2012.

In this interview by telephone was explained what the research is about and how it is done. Him was the low bicycle use by Moroccans explained and was asked whether their are cultural explanations for.

De Koning explained that according to him the difference is caused by the difference in behaviour between man and woman. According to some women should not cycle. In more orthodox tradition it is inappropriate for women to cycle. But this is predominately the case in other countries than the Netherlands. In for example Belgium or Germany some believe that cycling is not something women should do. The Netherlands is an exception. Women of orthodox Moroccan tradition do believe that a woman should not cycle, they however do. Cycling is convenient and especially when one does not have a drivers licence, as public transport is sometimes experienced as hostile.

Older generations do not cycle, when they do they cycle less. This is caused by unfamiliarity with cycling, it is not part of the habitus. One sometimes wonders himself about the Dutch who use the bicycle for everything, but so do other (Western) cultures. According to De Koning the bicycle lessons are well attained, especially by older man.

De Koning advices to ask people (i.e Moroccans) in the street how they see the bicycle and perceive cycling. He recommends to ask whether they see a link between their culture, origin and cycling.

De Koning is interested in the outcomes.

Interview by e-mail with dr. Ir. Youssef Boulaksil
Assistant Professor of Operations Management and Logistics at Al Akhawayn University Ifrane Morocco.
May 24th 2012

Could you as an assistent professor in logistic studies at a Moroccan university indicate the role of the bicycle in the Moroccan society?

In Morocco cycling is not as much done as in the Netherlands, predominately because of three reasons:
Terrain. There are little places in Morocco that are flat. Marrakech however is a city that does not have many hills and cycling is much done there.
Culture. Moroccons want to exceed and when possible be seen in an expensive car. A bicycle is not a sign of wealth and that can be part of the reason to why cycling is not much done in Morocco.
Danger. Traffic is chaotic and dangerous, it is not a pleasant environment to cycle.

Conversation with Angela van der Kloof
Mobility consultant Mobycon
December 20th 2011

The conversation with Van der Kloof was mend to find out whether it was interesting to do a research on the cycling behavior of non-Western immigrants in the Netherlands. Van der Kloof told that there is much to do about this subject, that only a few governments have policy especially for these immigrants as they sometimes neglect the "problem". One of the most important remarks Van der Kloof made was that every immigrant coming to the Netherlands cycles less. Not necessarily because they don't want to, but because the Dutch cycle so much.

Interview by telephone with Koen van Waes
Traffic planner at municipality of 's-Hertogenbosch
August 24th 2012

Van Waes was asked about his experiences with improving the infrastructure for cyclist.

According to Van Waes improvements in the bicycle infrastructure are doing good. The city succeeded in improving the cycling routes to shopping malls and sporting grounds as well as improving the infrastructure around schools. It also succeeded in improving the connection between the northern and southern parts of the city. Upcoming investments should improve the connection of the bicycle with and between the western and eastern part of the city. This is and will be done by creating an infrastructure with unbundling (ontvlechten) of car and bicycle traffic, high-quality main bicycle routes and where necessary overpass junctions to facilitate traffic flow and safety of both cyclists and car traffic. The hard side of cycling policy also deals with bicycle parking, this is improved by creating free guarded bicycle parking and more safe bicycle parking facilities.

Are these changes successful?

Yes, these improvements contribute to more cyclists. He concludes that the cycling policy in 's-Hertogenbosch is predominantly on creating new bicycle paths and parking facilities. He argues that in order to keep cycling levels growing also the soft side needs attention. This is for instance already been done by cycling lessons.

The so-called soft side of cycling?

Yes. This is the important next step in making 's-Hertogenbosch a true cycling city. The government is seeking ways to motivate their inhabitants to use the bicycle more. This will be done by marketing activities and giving up-to-date information on bicycle routes and parking's.

Interview by telephone with Hanneke van Dillen
Coordinator Brede Bossche Scholen at municipality of 's Hertogenbosch.
July 24th 2012

Van Dillen was asked about her experiences with the cycling lessons in 's-Hertogenbosch.

Six years ago the city of 's-Hertogenbosch started with facilitating the cycling lessons. The government received information that some of its adult inhabitants were in need of swim and cycling lessons. Therefore the department of Sport en Recreatie created budget that should help funding these lessons. The government thinks that they are not the responsible party to do this, but as there were no other organisations or groups who did the government felt obliged to do this. Important is that the government has a pure facilitating role.

Why are the lessons organised?

The goal is to get people moving, with the sport motive in mind. Wherefore partners are needed who are close to the participants and can and want to learn them how to cycle. Most often the students are groups of six till ten persons, their origin is divers and certainly not only Turkish or Moroccan but also Brazilian, eastern European, and sometimes even Dutch. Their age is diverse as well, from twenty till sixty.

The government bought bicycles as not every participant owns a bicycle. The teachers are hired from the "Angela van der Kloof academy". At the time there are already fifteen courses organised, the next one is planned for September 2012. There are thoughts to organise a follow-up course, one where women is also learned how to cycle with children. This is also financed out of the sport budget. Van Dillen has doubts whether the department of sports should finance the cycling lessons.

Are the courses successful?

Yes they are, but there has never been research done about it. The lessons are successful as the teachers see ex-students cycling and sometimes ex-students volunteer as teacher to learn others how to cycle. When one should measure the success of the lessons the result will probably learn that the lessons are successful.

Are there courses for men?

No. It seems that men are willing to follow a cycling course because they are ashamed. The female cyclists however claim that their men are too lazy to participate in the courses or one is too ashamed admitting that one cannot cycle.

Lisette Poldner

Cycling teacher in 's-Hertogenbosch (Landelijk Steunpunt Fiets).

July 26th 2012

Who participate in the cycling lessons?

Women of another than Dutch origin.

Why do the participants want to learn how to cycle?

The women want to learn how to cycle because their kids push them. They experience during the course that it can help them become more independent.

Why couldn't they cycle?

They all originate from countries where the bicycle is not within the daily patterns. When in the Netherlands, learning how to cycle was not their first priority. Most of the times they do own a drivers license and use the car. It was not so much that they weren't allowed to cycle, they just never thought about it.

Do their partners and children cycle?

Most of the times yes. They often push them to participate in the cycling lessons. Years ago, when I started to teach, some women weren't allowed to cycle but that changed.

Do they own a bicycle?

No, some buy a bicycle during the course.

Do you think that there is a connection between culture and cycling?

Yes. All participants originate from countries and cultures where cycling is less normal. There are no bicycle paths, distances are too far, most participants originate from Morocco and Turkey and in these countries one does not cycle.

Do you think that the background / culture of the women influences their bicycle use?

Yes, as it makes that they did not learn how to cycle when they were young.

Do you see a difference between cycling of Dutch and your (ex) students?

We (Dutch) learn how to cycle when we are young. Kids of immigrants also learn how to cycle, so after a period these differences don't exist anymore. We (Dutch) are therefore less afraid to cycle. When you learn things like swimming, cycling, skating when your somewhat older you take more precautions not to fall.

Yvonne van Dillen-Baudoin

Cycling teacher in 's-Hertogenbosch (Landelijk Steunpunt Fiets).

July 28th 2012

Who participate in the cycling lessons?

Immigrant women, diverse group from Armenia, Estonia, Iran, Afghanistan, Kenya, Somalia, Suriname, Turkey, Morocco and Aruba.

Why do the participants want to learn how to cycle?

They are motivated by others sometimes the community centre and because they see others cycling.

Why couldn't they cycle?

As it is sometimes perceived as inappropriate for them. Or being ridiculed for the poor.

Do their partners and children cycle?

Most of the times yes.

Do they own a bicycle?

No, sometimes they buy a bicycle during the courses.

Do you think that there is a connection between culture and cycling?

Yes, as I explained above.

Do you think that the background / culture of the women influences their bicycle use?

Yes, as I explained above.

Do you see a difference between cycling of Dutch and your (ex) students?

Yes, Dutch use it for recreation, immigrants do that very little.

Aart Jan Voogt

Assistent wijkmanager Utrecht Zuid

Interview on May 24th 2012

Interview was recorded. The records can be found on the compact disk added with this thesis.

Nadoua Dahmane

Jeugdwerker at Portes Zuid

Interview by e-mail on July 24th 2012

Dahmane was introduced to the research and explained how status of teenagers in Amsterdam is affected negatively when he or she rides a bicycle. She was asked about her experiences about cycling youth in Hoograven. She had little experience on this issue and therefore questioned a couple of teenagers of Moroccan origin.

Is status of importance for the teenagers of Hoograven?

After questioning a few of Hoogravens youth, they claim that they don't cycle because their too lazy. They want a mode of transport that is more comfortable. They however do not think they look like a fool when using the bicycle to go to school, but they just want comfort. The bicycle is used within the neighbourhood, because it is a faster and more flexible mode of transport than walking or public transport.

Status is of importance for Hoogravens youth, but the bicycle does not affect one's status negatively. It is however changed for the good when one has a car or scooter.

Does Hoograven's youth cycle?

Yes but predominately within the neighbourhood. When leaving the neighbourhood one will use public transport or sometimes "carpool" with friends who own a car.

Do you notice differences in bicycle use (gender, age, origin)?

I do not experience differences in gender. In age there is a difference, girls cycle longer than boys, i.e. boys want a scooter or car at a younger age. At the age of nineteen some teenagers already own a car, that is also used by friends.

Do you think that one's status is affected negatively by using a bicycle?

No.

Do you think that one does not cycle because he or she wants more comfort?

Yes.

Janneke van der Klei

Project manager Fietsschool, De Fietsersbond

August 31st 2012

Van der Klei was asked about the success of the cycling lessons for immigrants.

There aren't any, language problems and differences in cultures are the reason.

The lessons are intensive to teach (for the teachers) and success is low. After the lessons one does not cycle and is also not able to obtain a job.

The courses are expensive, 2500 euro's five lessons ten persons. The efforts done and costs made are too high for the low successes.

Jos Bierens

Opbouwwerkster at Portes Zuid

June 18th 2012

The answers to these questions were found after questioning 22 participants of cycling courses in Hoograven.

Who participate in the lessons? Who does not participate in the lessons?

Women who are; too old, handicapped, think that they cannot learn cycling, with fear of traffic, afraid to fall, are ashamed, are shy, do not own a bicycle, think that the car is more convenient.

Why do they participate?

Cycling courses are gezellig (fun) and a good way to learn Dutch. Besides these reasons it is good to be able to cycle because: cycling is cheaper than other modes of transport, it is good for your health, her husband can now use the car (for work), development, mobility is important, bicycle is easy in use, parking of car is expensive.

What are the results of the lessons? Do the participants keep cycling after the lessons?

Group 'one': women who learned how to cycle will keep cycling.

Group 'two': Women who do not finish the course will not cycle afterwards.

Do you see a connection between one's culture and cycling?

The Turkish culture is synonym for non cycling, therefore there are very few Turkish women who cycle. In Morocco the hilly terrain makes it difficult to cycle. In Morocco however is cycled more than in Turkey, but especially by man. Women are not allowed to cycle in Morocco. They are ashamed to cycle. In Morocco women go out very little, therefore there is less need to be able to cycle. Here women do have to go out as they have to bring their kids to school, do groceries or go to work, the bicycle is suitable for these kind of things.

Do the participants think that their culture influenced their cycling behaviour?

Group 'one': Some man claim that their religion forbids cycling.

Group 'two': When in the Netherlands women are not ashamed to cycle. Her many women cycle, what makes that for others it is easier to go cycling.

Do they perceive differences in their cycling behaviour and that of their Dutch neighbours?

Group 'one': Now this difference still exist. The Dutch neighbours cycle more. But they claim that in the future they might cycle more.

Group 'two': No differences. Also immigrant women cycle for recreation.

Fatma Güven

Department of Mens en Work at municipality of Rijssen Holten

December 10th 2012

Güven is involved in the cycling lessons in the municipality of Rijssen Holten

Why does the local government organise these lessons?

One who has learned cycling when he was young does not think of how hard it is to learn how to cycle at a higher age. Cycling lessons for adults therefore is needed. As knowing how to cycle makes that non-Western women are able to move around more freely in the Netherlands what can help improving integration and participation. This was for the government of Rijssen Holten enough to organise a cycling course. To stimulate women who cannot cycle.

Are there any preconditions to take part in the course?

No, only motivation is obliged.

Did every participant finish the course?

One of the women quite because of her health.

What are the costs of organising such a course?

Local government pays 2175 euro for fifteen lessons to thirteen women.

Was this the first time these lessons were organised? Is there going to be a second time?

Yes this was the first time, when there are enough participants the lessons will also be organised in 2013.

Will you measure whether the women, after participating in the course, do cycle?

No. All received a diploma. All are enthusiastic and all bought a bicycle. We think that they will cycle.

Attending cycling lesson in Rijssen

July 18th 2012

The lessons in the municipality of Rijssen Holten are funded by the local government. Among women of non-Western origin there was a latent need to know how to cycle.

During the morning there were two classes of sex women. They origin and age is divers, they have in common that all did not cycle before. They all do not own a bicycle and consider buying a bicycle as something expensive.

One of the women is in the Netherlands since 33 years but did not cycle before. Her children moved out and now she became a grandma she thinks it is time to learn to cycle. As she, just like the Dutch, wants to cycle with her grandchildren.

During the morning I spoke to a few women someone of Vluchtelingenwerk and a teacher, these are some quotes:

- "jullie Nederlanders leren het (fietsen) al in de buik van jullie moeder"
- "buiten fietsen is lekker" "gezellig"

- “vluchtelingenwerk moet het opnemen in haar standaard pakket, om zo mensen aan het fietsen te krijgen. Werd lacherig over gedaan.” Want fietsen kan iedereen toch?
- “fietsen dat kun je toch” uitgelachen om het geven van fietslessen.

APPENDIX 3: OUTCOMES OF OBSERVATIONS

BOSCHVELD

This observational-research was conducted by all passing cyclists on Thursday 21st of June 2012 between 08.00 and 09.00 AM. Goal of this observation was to get acquainted with Boschveld. This chosen location was at the corner of the Copernicuslaan and a shortcut to the Voltastraat. During the hour all passing cyclists on the Copernicuslaan, in both directions were photographed after which they were being categorised in various categories. First the cyclists were given numbers to indicate how many past, after which all passing cyclists were categorised by gender, estimated age category, and estimated origin (i.e. Dutch or non-Dutch).

On the moment of observation 66 cyclists (43,9% female) passed. However a much larger number of cars and pedestrians passed. In the table below are the general (estimated) demographical factors given.

<i>GENDER</i>	Total	Dutch	Non-Western
Male	37	27	10
Female	29	23	6
<i>AGE</i>			
0-11 years	1	0	1
11-17 years	24	16	8
18-29 years	16	14	2
30-66 years	25	20	5
67 and up	0	0	0

Table 4: Outcomes observation Boschveld.

HOOGRAVEN

On Thursday 24th of May 2012 between 08.00 and 09.00 am an observation of all passing cyclists was conducted in Hoograven. The chosen location was the corner Hooft Graaflandstraat and Karperstraat. The Hooft Graaflandstraat leads to Hoogravens public schools, is no main road and handles only local traffic (Voogt, 2012). During the hour all passing cyclists on the Hooft Graaflandstraat, in both directions were photographed after which they were being categorised in various categories. First the cyclists were given numbers to indicate how many past, after which all passing cyclists were categorised by gender, estimated age category, and estimated origin (i.e. Dutch or non-Dutch).

An observational-research was conducted by all passing cyclists on Thursday 24th of May 2012 between 08.00 and 09.00 AM. On the moment of observation 126 cyclists (67,5% female) passed. In the table below are the general (estimated) demographical factors given. The one's of whom could not be estimated what their age of origin is are left out.

<i>GENDER</i>	Total	Dutch	Non-Western
Male	40	21	14
Female	85	54	23
<i>AGE</i>			
0-11 years	12	5	5
11-17 years	6	0	6
18-29 years	27	19	6
30-66 years	75	47	20
67 and up	3	3	0

Table 5: Outcomes of observation Hoograven.