# Running in Groningen: How Running Routes are Affected by the Perceived Environmental Supportiveness

**Bachelor Project** 

Ida Witteveen S2230291

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## **Summary**

This thesis explores how the perceived environmental supportiveness for running in Groningen effect the routes of runners, who live in the city of Groningen. Eight runners have been interviewed about their experiences with running in Groningen. The results show that most of them prefer to run in the areas surrounding the city. These areas are viewed as more environmental supportive than the inner city. Because, for example, there are less people around, more greenery and more variety. This research shows that some constrains and enabling factors affect the routes of all runners, while the effect of other factors are specific to the individual runner.

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# 1 Introduction

### 1. 1 Background

Physical activity, including recreational running, has proven to benefit both physical and mental health. It diminishes physical health problems caused by an inactive lifestyle, such as obesity and heart and vascular diseases (Lee et al., 2012, in Barnfield, 2016). Well-being and mental health can be improved by physical activity because of reduced stress and improved self-esteem (Jackson, 2003; Penedo & Dahn, 2005, in Barnfield, 2016). Psychical activity also contributes towards healthy ageing (Katz & Calasanti, 2015, in Barnfield, 2016). Since an active lifestyle minimizes the physiological changes that are associated with ageing and help delay or prevent health problems mentioned above (Singh, 2002, in Thompson, 2007). Because of the health benefits, policy makers want to encourage people to be active.

Policy makers in Groningen aim to create a city with public space that is an inviting place to be active and to engage in sport activities. In order to encourage as many people as possible to not only start doing physical activities, but also to continue with them long term. They try to achieve this mostly by targeting specific places, such as sport parks (Gemeente Groningen, 2016). At some of the (sport) parks and recreational areas marked routes have been created for runners, by the municipality Groningen or by other organizations (e.g. Natuurmonumenten).

A supportive physical environment is a crucial condition for people to be physically active. (Thompson, 2013). This is especially the case for outdoor recreational running. The environment plays an essential role in enabling or constraining outdoor running and therefore effects the routes people run (Barnfield, 2016). The extent to which the environment helps of hinders physical activity by offering positive attractors in the landscape or environment as well as limitations which inhibit or prevent an activity is called environmental supportiveness by Sugiyama and Thompson (2007). A lack of a environmental supportiveness for running means the local population are deprived of opportunities to be healthy (Thompson, 2013).

In order for policies to be effective knowledge is required about what factors help and what factors hinder running in Groningen. as well as how these factors effects the routes people run in Groningen.

#### 1.2 Research problem

The aim of this thesis is to gain insight into what factors in the environment determine whether certain places in Groningen are perceived as environmental supportive for running and therefore either attract runners or deter runners from running in these places. Which leads to the central research question: how does the perceived environmental supportiveness for running in Groningen and the surrounding area effect the running routes of experienced runners, who live in the city of Groningen? The three secondary questions that will help answer the central question are: (1) Where do runners who live in the city of Groningen run their routes? (2) What factors in the environment do runners perceive as limitations that inhibit or prevent running in Groningen and surrounding area? (3) What factors in the environment do runners perceive as positive attractors to running in Groningen?

#### 2 Theoretical framework

Mobility is usually characterized by moving from one place to another place. But when it comes to running there is usually no destination to move to, other than the location where the runner started off their run. Which may give the impression that this form of mobility is pointless. However, contrary to most other forms of mobility, the movement itself is the activity. "Joggers are being mobile just to be mobile" (Simon et al., 2015, p.3).

The movement of running is an interaction between the body and environment (Eichberg, 1990; Winters, 1980, in Simon et al., 2015). Because of the role of the environment in enabling or constraining outdoor running the environment also plays a important role in people instigating and maintaining running. (Barnfield, 2016). Although, increasing physical activity is complex since it is also influenced by many other non- environmental factors (Rutter, 2012, in Barnfield, 2016). According to Wallenius (1999) environmental support is an interactional concept involving both environmental and individual-level factors. activity is a product of interaction between the needs of a person and environmental resources, or a person's capabilities and the demands of the environment.

The movement of running is an interaction between the body and environment (Eichberg, 1990; Winters, 1980, in Simon et al., 2015). The environment in integral in enabling or constraining running (Barnfield, 2016). As mentioned before, the extent to which the environment enables or constrains physical activity and provides positive elements is described as 'environmental supportiveness' (Thompson, 2013). Barnfield (2016) found that, among other things, constrains to outdoor running in an urban environment are poorly maintained surfaces and poor quality of lighting as well as interactions with other people. These interaction with other people inevitably lead to a negotiation of space. Which is defined as the conflict that arises out of the competition for and over space and the mobile social order that goes along with that (Binnie et al., 2007, in Simon et al., 2015). Some other research on the relationschip between running en the environment has focused running in parks by Krenichyn. Or has focused on the meanings of recreational running by Simon et. al. This thesis focuses on the environment of a city and running.

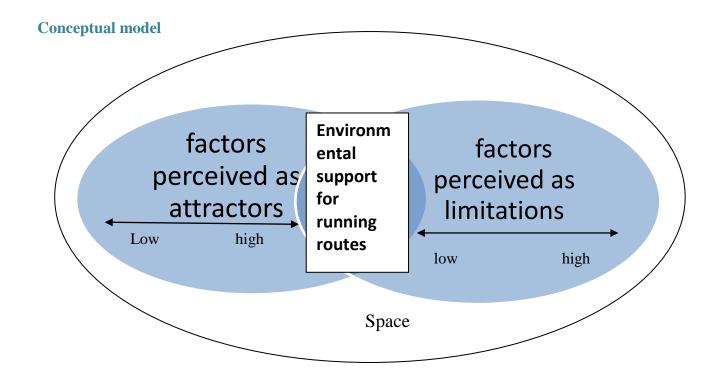


Figure 1. Conceputal model

Figure 1 visualizes how the routes people run are determined by the environmental supportiveness for running at that specific location. Environmental supportiveness consist out of factors that are perceived as limitations (E.g. traffic lights) or as positive attractors (E.g. nature)(Thompson, 2013). A relative high amount of attractors and a low amount of limitations create the most environmental support for running. Locations that provide a high amount of limitations and a low amount of attractors tends to be avoided by runners.

## 3 Methodology

In order to collect the data that is required to answer the research question, about how the perceived environmental supportiveness for running in Groningen effect the running routes of runners, eight runners who live in the city of Groningen were interviewed. Four of them were woman and four of them were man. This section will explain why this method was chosen, some ethical consideration will be explained, the process of data collection will be discussed, as well as the quality of the collected data.

#### **Semi-structured interviews**

Semi- structured interviews were chosen as the research method because interviews provide qualitative information about the experiences of an individual. Interviews with participants do not merely provide factual information, but also provide insight into personal experiences, feelings and choices. (Longhurst, 2010) E.g.: interviews do not only give the researcher the information that dogs are being viewed as a constrain by most runners. Interviews allow for the researcher to ask for a detailed explanation about why dogs are a constrain to the participant. This type of data is essential when it comes to answering the research question(s) of this thesis. Another argument in favour of interviews is that the semi-structured nature of the interviews gives participants the opportunity to come up with relevant topics that the researcher has not yet considered. Which might result in a more complete understanding of the researched subject and therefore enhance the quality of the data.

#### **Ethics**

Before the interviews were conducted, some ethical issues had to be considered. Since the researcher is a recreational runner herself, she is a insider of the researched group. Which means that being mindful of staying objective is important and that assumptions about the participants experiences based on the researchers owns experiences should be avoided. Awareness that certain things might go without saying from an insider's perspective, but are very interesting to point out from a objective standpoint, was also important. At the same time, the researcher her own experiences allow (to a certain extend) for a better understanding of the embodied experience of running. Since "the body is at the core of a runner's experience, and the experiences of the running body are mostly lived through the senses". (Allen-Collinson 2011; Maivorsdotter and Quennerstedt, 2012, in Simon et al., 2015, p.3)

#### **Participants**

A total of eight runners agreed to participate in this research and were interviewed at a location of their own choosing. The runners who have participated are all members of running groups, that were approached by the researcher. Individual runners who don't belong to a running group are difficult to get in contact with, but are part of the running population. The individual nature of jogging is one of the reasons why this sport appeals to many people, especially in the current day and age. Where people live busy lives and don't want to, or cannot, commit to a team sport. This should be taken into consideration, when looking at the results. The same goes for the fact that this research does not include any novices. Although the participants differ in the years of experiences of running they have, none of them can be classified as novices. Therefore, the result do not include the experiences of novice runners, who's experiences may be different from long time runners. Experienced runners may have been able to adapt to constrains.

Neither does this research include participants who stopped runner running after a short period of time. The people who were interviewed did not at find the obstacles in the environment restricting to the point where they stopped running. Whereas runners who may have found the environment restricting to that level and never became more experienced are excluded from by this research. On a positive note, experienced runners are more likely to have encountered a larger range of experiences. And therefore are less likely to not leave some experiences out simply due to their lack of experience with these situations. E.g.: novices might not point out certain constrains, simply because they have not yet encountered these constrains while running.

#### **Challenges**

The interview includes a question which asks participants the draw the route(s) they run on a map of the city of Groningen. This question encourages people to start thinking about the specific situation they encounter on their run. For example, drawing a line over a crossing, might remind someone that they always have to stop for traffic at that location. (Longhurst, 2010). With these maps, a practical challenge arose, during the interviews. One of the findings is that many participants run outside the city limits, in the less densely populated areas surrounding the city and towards the smaller towns that surround Groningen. Some of the participants run relatively long distances (up to 60 kilometers). Therefore, some of the routes couldn't be completely indicated on the maps that were provided and instead had to be described by the participants. These findings mean that the research does not merely represent running within in the city limits of Groningen but also in the surrounding areas. It does, however, only represents runners who live within the city limits. These findings also resulted in a shift of the focus of the research. Detailed questions about the participant's own neighborhood, that were originally planned, were left out of some interviews.

#### 4 Results

#### 1. Running routes

The running routes of participants who live in the city of Groningen tend to move away from the city through the less urbanized areas surrounding the city. This pattern of routes is shown in figure 2. One of the participants comments, on the routes she regularly runs, by saying "I actually think that the routes that start from home and that lead me outside the city are the nicest". "Usually we leave the city right away and go towards to meadows surrounding the city". Specific locations that are mentioned as running locations by the participants are: Paterswoldemeer, Onlanden, Koningslaagte, Kardinge/Recreatiepark Noorddijk. An area that is often mentioned by participants as an area they avoid is the inner city. Several runner mention: "I never run in the inner city". The factors that are perceived as limitations and therefore inhibit and prevent running in places, such as the inner city, are presented in the next section.

#### 2. Perceived limitations that inhibit or prevent running

The activity of running has two important characteristics: speed and rithm (Simon et al, 2015). All the factors that are perceived as limitation by the participants share the characteristics that they prevent runners from moving through place at a constant speed. "I find it very annoying because you are constantly pulling up and braking." Another participant describes it as: "obstructive because you have to lower your pace each time".

#### Physical elements in the environment

One factor that keeps participants from running at their desired pace are sidewalks. "paving stones are regally lose or stick out. Some sidewalks are so small that you run into the plants or if you pass someone by you have to step on the road...constantly off the sidewalk on the sidewalk". Another element of the physical environment that is perceived as a limiting factor are traffic lights. The following participant comments on the inner city of Groningen: "Because there are a lot of speed restricting things like traffic lights and you can try to avoid a couple of them by taking the overpasses. However, it is unavoidable that you actual have to wait at big crossings".

#### Other occupants of place

Two other factors that are perceived as limiting are occupants of public space. These are dogs and other road users. Dogs were mentioned as annoying by almost every participant. Several participants mentioned having negative experiences with being bit by dogs while running or during other activities. "While mountain biking I have been bitten twice in my feet by a dog. So if I encounter a dog during my run then I will always run slower and I will keep my

<sup>&</sup>lt;sup>1</sup> "leukste vind ik eigenlijk de routes waarbij ik vanuit mijn huis de stad uit ben"

<sup>&</sup>lt;sup>2</sup> "Maar meestal dan eh trekken we gelijk de stad uit en dan gaan we gewoon daadwerkelijk de landerijen rondom."

<sup>&</sup>lt;sup>3</sup> "dat vind ik wel heel vervelend want je bent constant aan het optrekken en het afremmen."

<sup>&</sup>lt;sup>4</sup> "hinderlijk want je moet elke keer je tempo eruit halen."

<sup>&</sup>lt;sup>5</sup> "Soms zijn de voetpaden ook heel smal. dat je tegen de bosjes aan loopt of als je iemand inhaalt al snel moet uitwijken naar de straat..uhm..stoepje af en stoepje op."

<sup>&</sup>lt;sup>6</sup> "omdat je echt gewoon zoveel snelheidsbeperkende dingen hebt zoals verkeerslichten. en je kunt door middel van viaducten zou je een aantal kunnen vermijden maar dat je daadwerkelijk voor grote kruisputen komt te staan is onvermijdbaar."

distance while passing it by" Another participants said "I don't know what the dog is going to do, if the dog will try to bite my feet or just want to run alongside me"8 This participant also mentioned being fearful of obtaining an injury and/or hurting the dog, if she were to collide with a dog. "I am going to hit the ground hard when I trip over a dog". One person explained that they usually avoid running in Vinkenhuizen due to large amount of people walking their dogs in this area. "there is a small forest in Vinkhuizen which is nice but there are quite a lot of unleashed dogs...therefore I don't often run at that location". 10 In addition to dogs, some participants mention other road users as a limiting factor. "the red cycle path towards the city- if you follow it you end up near platsoen - that one is very busy with cyclist. That one I avoid." <sup>11</sup> Another participant comments on a certain route "it means that you are constantly stopped by car's", 12

#### 3. Perceived positive attractors in the landscape

Factors that are perceived of attractors are not having to pay close attention to other road users or the road surface and Greenery. "Without any holes ore obstacles where you have to be concentrated while running." <sup>13</sup> Another participant mentioned: Nature, you don't come across anybody. It is very pleasant to only be occupied with your body" <sup>14</sup>. Most participants prefer to run in "green" places. The participants defined greenery as places with either "a line of trees", "meadows", and/or "bodies of water". One participant explained "I run past every piece of greenery that I come across in that area" When asked about why the participants like these green spaces most say that they find it "beautiful". One participant said: "area is incredible beautiful to run through".16

<sup>&</sup>lt;sup>7</sup> "op de mountainbike ben ik twee keer echt in de enkel gebeten door een hond. dus als ik er bij het hardlopen een tegenkom, een hond dan ga ik altijd wat rustiger lopen en probeer ik er met een boogje omheen te lopen."

<sup>&</sup>quot;ik weet niet wat die hond doet of die uit is op mijn hakken of dat die gewoon vrolijk meelopen"

<sup>&</sup>lt;sup>9</sup> "ik ga best we hard onderuit op het moment dat over zo'n hond heem omtuimel"

<sup>10 &</sup>quot;Vinkhuizen heb je nog wel een klein bosje en opzich is het daar wel leuk maar daar is nogal wat zijn nogal wat honden. loslopende honden ook.....dus ja die pak ik ook niet zo vaak"

<sup>11&</sup>quot; het rooie fietspad richting de stad als je helemaal rechddoor gaat dan kom je bij het platsoen uit die is heel druk met fietsers. Die vermijd ik dus."

12" houd in dat je in weze constant opondhoud hebt door auto's"

<sup>13 &</sup>quot;zonder gat in de weg dat je moet concentreren op het hardlopen"

<sup>14&</sup>quot;Natuur, daar kom je niemand tegen. Dat is heel lekker om alleen maar met je lichaam bezig te zijn."

<sup>15 &</sup>quot;al het groen dat ik tegenkom dat pik ik mee"

<sup>16 &</sup>quot;is onzettend mooi om hard te lopen"

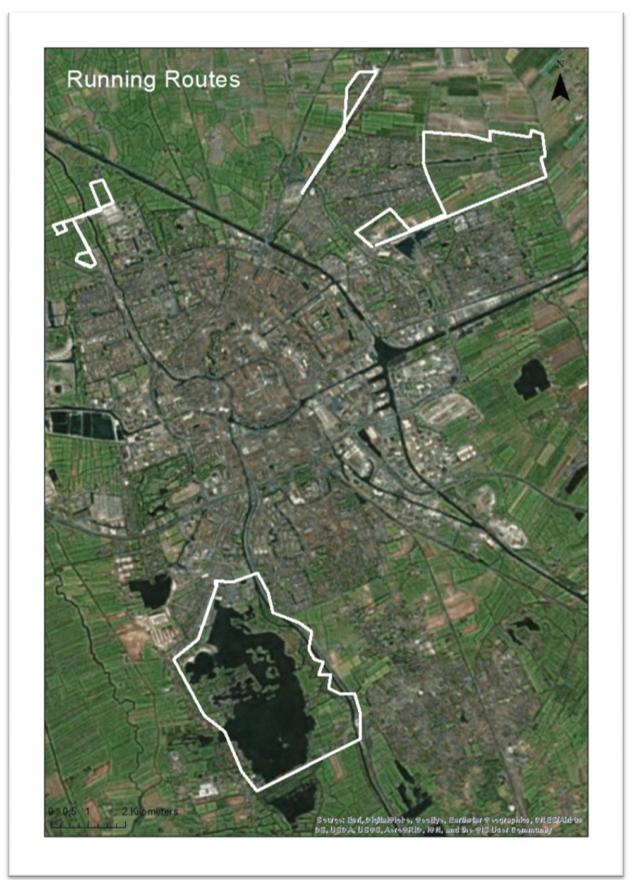


Figure 2. Routes ran by participants, who live in Groningen

#### 5 Discussion

The results show similarities with findings by Barnfield (2016). Who found that, among other things, poorly maintained surfaces and interactions with other people impact the route people run. The factors that where perceived as limitations where perceived as such because dealing with them prevent participants from running at a steady speed.

The inner city is a area that is often avoided by participants. Simon et al (2015) found that runners avoided pedestrian routes in the city due to the greater intensity of encounters with other users of the same space. Which is in line with findings of this thesis where people explained that they avoid this area because there are *too* many other people which prevents participants from running. The same goes for other limiting factors, such as the traffic lights and crossing, of which there are *too* many according to the participants. At the same time does the inner city lack factors that are perceived as attractors, such as nature. The combination of a high amount of limiting factors and low amount of attractors make this area very environmental unsupportive.

The intensity of limiting factors explains the extend of the impact of these factors on the routes of runners. Although personal factors also play a role in exactly determining which areas are perceived as environmental supportive. Since environmental support involves both environmental and individual-level factors and is also a product of a person's capabilities and the demands of the environment (Wallenius, 1999) Which is also reflected in the results of this thesis. Where some runners will avoid a area completely because of a specific factor, such as dogs. While others are capable of dealing with dogs even though they find them annoying.

#### **6 Conclusions**

During the interviews the participants expressed several different limiting factors and factors that are perceived as attractors to running in Groningen. Limiting factors are sidewalks, especially badly maintained ones. Other limiting factors are dogs, traffic lights and people. All the factors that are perceived as limitation by the participants share the characteristics that they prevent runners from moving through place at a constant speed. Factors that are perceived as attractors are nature and not having to pay attention to the environment. These factors, and individual factors determine that the perceived environmental supportiveness for running is low in the city center of Groningen and high in area's outside the city. Therefore most participants choose to run at the edge of the city.

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## **Appendix 1**

#### Vragenlijst

#### Algemene vragen met betrekking tot hardlopen:

- Hoe vaak per week loopt u hard?
- Wat voor afstanden loopt u?

Algemene vragen met betrekking tot de **buurt** waarin de participant woonachtig is:

- Welke buurt woont u?
- Woonde u al in deze buurt voordat u ging hardlopen?
  - In welk mate is hardlopen van invloed geweest op de keuze om in deze buurt te gaan wonen?
- Kunt u wat vertellen over uw ervaringen met hardlopen in uw eigen buurt?

#### Vragen over de hardloop **route**:

- Wilt u op de kaart aangeven waar u regelmatig hard loopt?
  - o Loopt u hard vanuit huis en/of op een andere locatie? Waarom?
  - o Loopt u vaak dezelfde route of wisselt uw af? Waarom?
    - Verschillen deze routes veel van elkaar? Komt u onderweg hele andere dingen tegen? Kunt u wat voorbeelden noemen?
    - In hoeverre spelen weersomstandigheden, tijdstip etc. een rol?
- In hoeverre vind u de buurt/groningen **geschikt** voor hardlopen?
  - o Wat maakt de buurt ongeschikt of geschikt?
  - o In hoeverre voelt u zich belemmert in hardlopen?
  - o Hoe gaat u hier mee om?
  - o Zijn er plekken die u vermijd? Waarom?
  - o Zijn er plekken waar u graag hardloopt? Waarom?
- Waarom bent u ooit begonnen met hardlopen?
- Wat is het verschil in de routes die u loopt tussen nu en in uw begintijd?
  - o In hoeverre was de ervaring anders?
- Zijn er nog verbeter punten in Groningen
- Zijn er nog verbeter punten in uw buurt?

Zijn er nog onderwerpen, waarvan u denkt dat die relevant zijn, maar waar we niet over gesproken hebben?