

HEURISTIC EVALUATION OF A STREET FOR EVERYDAY CYCLING

	Principle*	Description
1	Accessibility	Is the street easy and comfortable to ride a bike on by people of all backgrounds? Are people of diverse abilities able to use the street without adjustments to their normal life?
2	Consistency	Is the visual and physical interface consistent while using the street?
3	Cost-Benefit	Do the benefits to biking on the street (e.g. speed, convenience) outweigh the costs (e.g. fear for safety, difficulty, having to adjust lifestyle) for the everyday person? Is the cost-benefit ratio for riding a bike better than for that of motorized modes of transportation on the street?
4	Forgiveness	Does the street allow and forgive “user error” such as a person riding slow for a while, a kid swerving while learning to ride, or a person using their cell phone? Or, do these minor human “errors” result in having to worry about being run over by a car or yelled at by a fast racing cyclist?
5	Hierarchy of Needs	Are the most essential and pressing needs (safety & reliability) properly addressed and then built on for higher level needs?
6	Signal to Noise Ratio	Does the street provide too much distracting, unimportant information or does it keep it concise and clear?
7	User Control	Do people have sufficient control of their experience on the street to meet their needs? Are they able to have their own riding style or do they have to conform to street to do things such as survive motor traffic and make traffic lights?
8	Visibility	Can the users understand how the street system is working (at a high level) based on visual cues? At a smaller scale, is the status of different street elements that affect people’s experience clear?

*These principles do overlap and are not mutually exclusive.

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Principles in Practice

A street's usability can be gauged roughly by how people use it and how they emotionally appear while riding. If diverse groups of people are comfortable and relaxed, the street is likely working. Note: these principles do overlap and are not mutually exclusive.



Accessibility

On this street, a mother can go about her daily routine taking her child to school easily. The child is also safe and comfortable. A teenager can casually go to a friend's house when he wants to without a second thought, no special clothing, gear or training needed. The street is **accessible to all types of people** and there is **no disruption to these different users' lives** by taking the bike on this street.



Consistency

This street, adjacent bike paths and many other bikeways in The Netherlands all have red pavement. This red pavement indicates that space is for cycling all across the country in a simple and straightforward way. The pavement is smooth without potholes, and the overall **physical and visual experience on the route is very consistent and easy to use.**



Cost-Benefit

In the city center of The Hague, the bike is the most popular choice to get around because it is faster, easier and more convenient than driving a motor vehicle. On this main shopping street, all different types of people ride bikes to get around because of the many **benefits such as speed, comfort, convenience, sociability and ease of use that far outweigh the costs of the activity.**



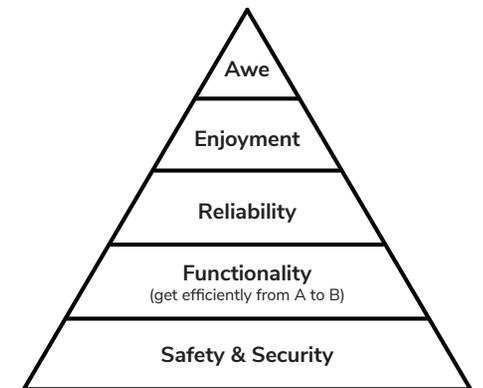
Forgiveness

Here, a young kid can learn to ride a bike without worry of fatal consequence if he swerves or doesn't go fast enough. His sister can ride with their mom and if there is any wobbling or other small "rider error", they do not have to worry about being run over by a car or yelled at by a racing cyclist to get out of the way. **The bikeway is forgiving to these minor "mistakes" that everyday people make.**



Hierarchy of Needs

This bike path is safe and comfortable. **It fulfills people's basic lower level needs** like in the diagram on the right (it's safe, functional and reliable). **Then, it goes further and provides an enjoyable experience that leaves many in awe** by going through a famous museum, the Rijksmuseum. **This awe only comes because the other needs are met first.**



Adapted Hierarchy of Needs for Everyday People Getting around

Translated from Maslow's Hierarchy of Needs



Signal to Noise Ratio

On this street, motor vehicles are not allowed, with the exception of delivery and emergency vehicles. Besides movable bollards at the street entrance to prevent motor vehicle access, **no extra signage or markings are necessary (there is a very good signal to noise ratio with virtually no unnecessary information)**. The level brick pavers show this is a space where people move at a human speed. People can bike through peacefully without special bike lanes needed.



User Control

This young woman can go at a leisurely pace, stop spontaneously to go to a store or decide to speed up if she is in a rush. She just got off the phone with a friend she is about to visit, but she is not stressed because **she is in control of her experience on this street and she does not need to adjust herself to the street.** She is not forced to wear reflective clothing or a helmet, and doesn't have to conform her riding to survive being around motor vehicles or to rush to make the traffic light.

Visibility

On this street in Copenhagen, people riding bikes can tell if they will make it through the traffic light through small LED lights on the bike path. If the lights are green next to you, you're on track to make the light (at an average leisurely biking pace). **This provides visibility to help people better understand how they fit into the street system and helps them shape their experience on the street** (e.g. should they speed up, slowdown or continue as is).

