

Perceived Importance of Context-Specific Built-Environment Factors of Walking: A New Perspective for Prioritizing Policy Measures for Promoting Walking

Supplementary Material (Date of Submission: 30.10.2023, IJST)

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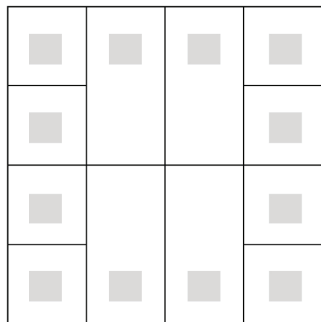
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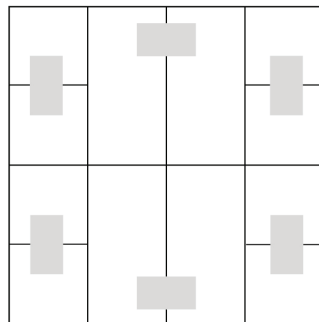
Supplementary Material

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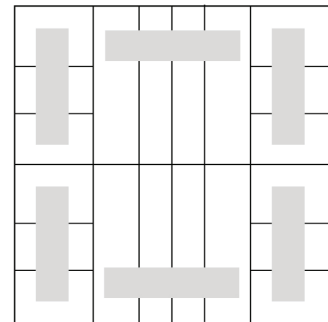
Figure S 1: Schematic Illustration of the Building Types of Question 1.1



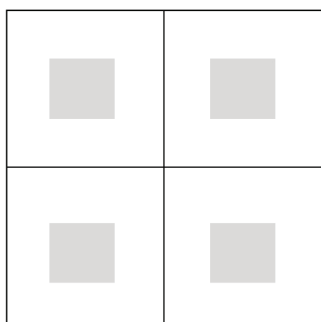
1) Detached Single-Family House on a Single Lot



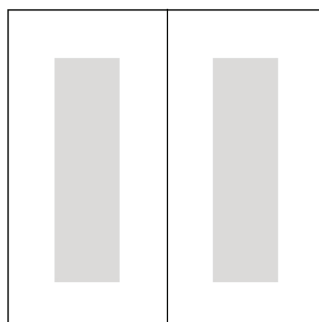
2) Semi-Detached House



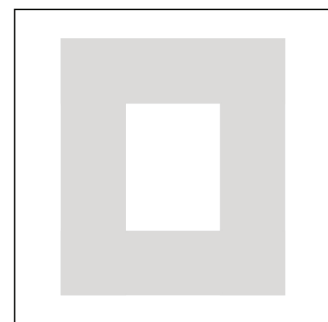
3) Row House



4) Detached Apartment House on a Single Lot



5.1) Rowed Apartment House as Parallel Apartment Buildings
 Green Areas Inbetween with
 - up to 6 floors or with
 - more than 6 floors (Large Housing Estate)



5.2) Rowed Apartment House as Apartment Buildings (Blocks) often with Backyards in
 - Residential Areas or in
 - Mixed Areas

Table S 1. Calculation Steps of the Variable "Area Type By Predominant Building Type"

| Input Variables | Computing by SPSS | Outcome Variable |
|---|--|--|
| Step 1: Ranking by Predominant Building Type | | |
| <p>BT_1: Detached single-family houses on a single lot*</p> <p>BT_2: Semi-detached house*</p> <p>BT_3: Row house*</p> <p>BT_4: Detached apartment houses on a single lot*</p> <p>BT_5: Rowed apartment houses*</p> <p>*Scale:</p> <p>-11 = Empty</p> <p>-8 = Question not asked</p> <p>1 = Not Present</p> <p>2 = A few Present</p> <p>3 = Predominantly Present</p> <p>4 = All Buildings Correspond to the Building Type</p> | <p>Compute PBT_R=5.</p> <p>IF (BT_5=1) & (BT_4=1) & (BT_3=1) & (BT_2=1) & (BT_1=1)) PBT_R=-7.</p> <p>IF (BT_5=4) & (BT_4=4) & (BT_3=4) & (BT_2=4) & (BT_1=4)) PBT_R=-7.</p> <p>IF (BT_4>BT_5) PBT_R=4.</p> <p>IF (BT_3>BT_4 & BT_3>BT_5) PBT_R=3.</p> <p>IF (BT_2>BT_3 & BT_2>BT_4 & BT_2>BT_5) PBT_R=2.</p> <p>IF (BT_1>BT_2 & BT_1>BT_3 & BT_1>BT_4 & BT_1>BT_5) PBT_R=1.</p> <p>EXECUTE.</p> <p>Commands translated into clear text</p> <p>Compute new Variable PBT_R= 5 (highest Prio)</p> <p>*if all BTs are "not present"; Building Type Ranked (PBT_R) is not valid (-7)</p> <p>*if all BTs are "All Buildings Correspond to the Building Type"; Building Type Ranked (PBT_R) is not valid (-7)</p> <p>*if more Detached Apartment Houses than Rowed Apartment Houses, then PBT_R= 4 (Detached Apartment Houses)</p> <p>*if more Row Houses than Detached Apartment Buildings and Rowed Apartment Houses, then PBT_R= 3 (Row Houses)</p> <p>* if more Semi-detached Houses than Row Houses, Detached Apartment Buildings and Detached Apartment Houses, then PBT_R= 2 Semi-detached House</p> <p>*if more Single Detached Houses than other building types, then PBT_R= 1</p> | <p>PBT_R: Predominant Building Type Ranked:</p> <p>-7 = Not valid</p> <p>1 = Detached Single-Family Houses on a Single Lot</p> <p>2 = Semi-detached house</p> <p>3 = Row Houses</p> <p>4 = Detached Apartment Houses on a Single Lot</p> <p>5 = Rowed Apartment Houses</p> |

| Step 1.1: Recoding and Merging PBT_R 1-3 into one category with similar residential density; New Variable PBT_R_grouped | | |
|--|--|---|
| PBT_R: Predominant Building Type Ranked | RECODE PBT_R (-7=-7) (1=1) (2=1) (3=1) (4=2) (5=3) INTO PBT_R_grouped. VARIABLE LABELS PBT_R_grouped 'Building Type Ranked grouped'. EXECUTE. | PBT_R_grouped: Building Type Ranked (grouped): -7 = not valid 1 = (Detached) Single-Family Houses 2 = Detached Apartment Buildings 3 = Rowed apartment houses |
| Step 2: Specification of Predominant Building Type Ranked (PBT_R) and Creating Final New Variable "Area Type by Predominant Building Type" AT_PBT/AT_PBT_LOG | | |
| PBT_R_grouped: Building Type Ranked grouped and BT_Spec: Further Specification of Building Type "Rowed Apartment Houses": -8 = Question not answered 1 = Residential area, no or only few non-residential usages in the buildings, often with backyards 2 = Residential area with parallel apartment buildings (up to 6 floors, without backyards) and green areas between the buildings 3 = Mixed area, with many stores on the first floor or service providers in the buildings, often with backyards 4 = Large housing estate (6 and more floors) 99 = Others | RECODE PBT_R_grouped (ELSE=Copy) INTO AT_PBT. VARIABLE LABELS AT_PBT "Area Type by Predominant Building Type". IF (BT_Spec=99) AT_PBT=99. IF (PBT_R_grouped=3 & BT_Spec=1) (PBT_R_grouped=3 & BT_Spec=2) AT_PBT=3. IF (PBT_R_grouped=3 & BT_Spec=3) (PBT_R_grouped=3 & BT_Spec=4) AT_PBT=4. EXECUTE. *LAST STEP Recoding for Logistic Regression AT_PBT_LOG: RECODE AT_PBT (-7=-7) (99=99) (1=0) (2=1) (3=2) (4=3) INTO AT_PBT_LOG. VARIABLE LABELS AT_PBT_LOG 'Area Type by Predominant Building Type - Ready for LogReg'. EXECUTE. | AT_PBT: Area Type by Predominant Building Type: -7 = Not valid 1 = (Detached) Single-Family Houses 2 = Detached Apartment Buildings 3 = Rowed Apartment Buildings in Residential Areas 4 = Rowed Apartment Buildings in Mixed Areas 99 = Others AT_PBT_LOG: Area Type by Predominant Building Type – Ready for LogReg -7 = Not valid 0 = Detached Single-Family Houses 1 = Detached Apartment Buildings 2 = Rowed Apartment Buildings in Residential Areas 3 = Rowed Apartment Buildings in Mixed Areas 99 = Others |

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Table S 2. Model 1: Matrix of Correlations (SPSS Version 27)

| | | Korrelationen | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|--|--|---|-------------------------|-----------------------|-------------------------------|------------------|--------------------|--------------------------|--|--|---|---|--------------------------------------|---|--|---------------------------------|----------------|-----------------|------------------------------------|---|--|---------------------|------------------------|-------------------------|----------------|------|------|
| | | Children in Households (Reference Category: No Children) | Number of Children in Total Households | Number of Bicycles and E-Bikes (Reference: 1 Bicycle) | Employment in Education | Employment (30 Years) | Employment (Aged 35 and Over) | Employment (Men) | Employment (Women) | Gender (Reference: Male) | High-School Graduates (Reference: High School Diploma) | Area Type (Detached Single-Family House) | Area Type (Detached Apartment Building) | Area Type (Attached Apartment Building) | Area Type (Rowed Apartment Building) | Accessibility of Public Transport (0-5 Minute Walk) | High Surface Quality (0-5 Minute Walk) | Street Furniture (e.g. Seating) | Public Toilets | Street Lighting | Trees and Planting Along Sidewalks | First Floor in Adjacent Buildings (Reference: No First Floor) | Appropriate Height of Buildings (Reference: 3-5 Stories) | Low Vehicle Traffic | Crime-Related Security | Traffic Accident Safety | Safe Crossings | | |
| Children in Households | Person-Korrelation | 1 | .452 | -.055 | .000 | .000 | .000 | .000 | .000 | .000 | -.004 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Number of Children in Total Households | Person-Korrelation | .452 | 1 | -.043 | .000 | .000 | .000 | .000 | .000 | .000 | -.004 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Number of Bicycles and E-Bikes | Person-Korrelation | -.055 | -.043 | 1 | -.000 | -.000 | -.000 | -.000 | -.000 | -.000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

** Die Korrelation ist auf dem Niveau von 0,05 (2-seitig) signifikant.
 * Die Korrelation ist auf dem Niveau von 0,10 (2-seitig) signifikant.

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Table S 3. Model 2: Matrix of Correlations (SPSS Version 27)

| | | Korrelationen | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------|---|---|---|-------------------------|---|----------------------------------|---------------------|-----------------------------------|---|--|---|---|---|--|--|----------------------|--------------------------------|---------------------------------|--|--|----------------------------------|--|
| | | Children in Household (Reference Category: No Children) | Number of Cars in Household (Total Private and Business Cars) | Number of Bicycles in Household (Total Conventional Bicycles and E-Bikes) | Employment in Education | Employment: Employed Persons Aged 35 and More | Employment: Non-Employed Persons | Employment: Retired | Gender (Reference Category: Male) | High-School Graduation (Reference Category: No High School Diploma) | Area Type: (Detached) Single-Family Houses | Area Type: Detached Apartment Buildings | Area Type: Rowed Apartment Buildings in Residential Areas | Area Type: Rowed Apartment Buildings in Mixed Areas | Accessibility of 5 out of 5 Facilities of Daily Needs in a 5-Minute Walk | Accessibility of at Least One Public Transport Mode in a 5-Minute Walk | The Walk is Not Long | It Goes the Fastest by Walking | Sidewalks Are Sufficiently Wide | Along the Walkway There Are Attractive Green Areas (e.g. parks, trees) | Along the Walkway There Are Attractive Buildings | Along the Walkway Traffic is Low | Along the Walkway It is Secure (Crime-Related) |
| Children in Household (Reference Category: No Children) | Pearson-Korrelation | 1 | | | | | | | | | | | | | | | | | | | | | |
| | N | 4352 | | | | | | | | | | | | | | | | | | | | | |
| Number of Cars in Household (Total Private and Business Cars) | Pearson-Korrelation | | 1 | | | | | | | | | | | | | | | | | | | | |
| | N | 4342 | 4342 | | | | | | | | | | | | | | | | | | | | |
| Number of Bicycles in Household (Total Conventional Bicycles and E-Bikes) | Pearson-Korrelation | | | 1 | | | | | | | | | | | | | | | | | | | |
| | N | 4342 | 4342 | 4342 | | | | | | | | | | | | | | | | | | | |
| Employment in Education | Pearson-Korrelation | | | | 1 | | | | | | | | | | | | | | | | | | |
| | N | 4185 | 4179 | 4179 | 4185 | | | | | | | | | | | | | | | | | | |
| Employment: Employed Persons Aged 35 and More | Pearson-Korrelation | | | | | 1 | | | | | | | | | | | | | | | | | |
| | N | 4185 | 4179 | 4179 | 4185 | 4185 | | | | | | | | | | | | | | | | | |
| Employment: Non-Employed Persons | Pearson-Korrelation | | | | | | 1 | | | | | | | | | | | | | | | | |
| | N | 4185 | 4179 | 4179 | 4185 | 4185 | 4185 | | | | | | | | | | | | | | | | |
| Employment: Retired | Pearson-Korrelation | | | | | | | 1 | | | | | | | | | | | | | | | |
| | N | 4185 | 4179 | 4179 | 4185 | 4185 | 4185 | 4185 | | | | | | | | | | | | | | | |
| Gender (Reference Category: Male) | Pearson-Korrelation | | | | | | | | 1 | | | | | | | | | | | | | | |
| | N | 4295 | 4289 | 4289 | 4148 | 4148 | 4148 | 4148 | 4148 | | | | | | | | | | | | | | |
| High-School Graduation (Reference Category: No High School Diploma) | Pearson-Korrelation | | | | | | | | | 1 | | | | | | | | | | | | | |
| | N | 4236 | 4233 | 4233 | 4233 | 4233 | 4233 | 4233 | 4233 | 4236 | | | | | | | | | | | | | |
| Area Type: (Detached) Single-Family Houses | Pearson-Korrelation | | | | | | | | | | 1 | | | | | | | | | | | | |
| | N | 4154 | 4144 | 4144 | 3998 | 3998 | 3998 | 3998 | 4099 | 4054 | 4423 | | | | | | | | | | | | |
| Area Type: Detached Apartment Buildings | Pearson-Korrelation | | | | | | | | | | | 1 | | | | | | | | | | | |
| | N | 4154 | 4144 | 4144 | 3998 | 3998 | 3998 | 3998 | 4099 | 4054 | 4423 | 4423 | | | | | | | | | | | |
| Area Type: Rowed Apartment Buildings in Residential Areas | Pearson-Korrelation | | | | | | | | | | | | 1 | | | | | | | | | | |
| | N | 4154 | 4144 | 4144 | 3998 | 3998 | 3998 | 3998 | 4099 | 4054 | 4423 | 4423 | 4423 | | | | | | | | | | |
| Area Type: Rowed Apartment Buildings in Mixed Areas | Pearson-Korrelation | | | | | | | | | | | | | 1 | | | | | | | | | |
| | N | 4154 | 4144 | 4144 | 3998 | 3998 | 3998 | 3998 | 4099 | 4054 | 4423 | 4423 | 4423 | 4423 | | | | | | | | | |
| Accessibility of 5 out of 5 Facilities of Daily Needs in a 5-Minute Walk | Pearson-Korrelation | | | | | | | | | | | | | | 1 | | | | | | | | |
| | N | 4352 | 4342 | 4342 | 4185 | 4185 | 4185 | 4185 | 4295 | 4236 | 4423 | 4423 | 4423 | 4423 | 4637 | | | | | | | | |
| Accessibility of at Least One Public Transport Mode in a 5-Minute Walk | Pearson-Korrelation | | | | | | | | | | | | | | | 1 | | | | | | | |
| | N | 4352 | 4342 | 4342 | 4185 | 4185 | 4185 | 4185 | 4295 | 4236 | 4423 | 4423 | 4423 | 4423 | 4637 | 4637 | | | | | | | |
| The Walk is Not Long | Pearson-Korrelation | | | | | | | | | | | | | | | | 1 | | | | | | |
| | N | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | | | | | | |
| It Goes the Fastest by Walking | Pearson-Korrelation | | | | | | | | | | | | | | | | | 1 | | | | | |
| | N | 1942 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1942 | | | | | |
| Sidewalks Are Sufficiently Wide | Pearson-Korrelation | | | | | | | | | | | | | | | | | | 1 | | | | |
| | N | 1942 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1934 | 1942 | | | | |
| Along the Walkway There Are Attractive Green Areas (e.g. parks, trees) | Pearson-Korrelation | | | | | | | | | | | | | | | | | | | 1 | | | |
| | N | 1917 | 1909 | 1909 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1917 | | | |
| Along the Walkway There Are Attractive Buildings | Pearson-Korrelation | | | | | | | | | | | | | | | | | | | | 1 | | |
| | N | 1873 | 1866 | 1866 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1815 | 1873 | | | |
| Along the Walkway Traffic is Low | Pearson-Korrelation | | | | | | | | | | | | | | | | | | | | | 1 | |
| | N | 1917 | 1909 | 1909 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1852 | 1917 | | | |
| Along the Walkway It is Secure (Crime-Related) | Pearson-Korrelation | | | | | | | | | | | | | | | | | | | | | | 1 |
| | N | 1802 | 1794 | 1794 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1742 | 1802 | | | |

*** Die Korrelation ist auf dem Niveau von 0.01 (2-seitig) signifikant.
 ** Die Korrelation ist auf dem Niveau von 0.05 (2-seitig) signifikant.

Model 1: Leisure Walking

Table S 4. Model 1: Socio-Demographic and Socio-Economic Factors

| | Persons walking less than three to four days a week | Persons walking daily or almost daily | All Persons |
|--|---|---------------------------------------|-------------|
| Children in Household [%] | | | |
| No Child(ren) [%] | 81.5 | 82.6 | 82.1 |
| Child(ren) in Household [%] | 18.5 | 17.4 | 17.9 |
| | 100 | 100 | 100 |
| n | 1,900 | 2,451 | 4,352 |
| Average Number of Cars in Household (Total Private and Business Cars) | | | |
| Average Number of Cars in Household (Total Private and Business Cars) | 1.28 | 1.0 | 1.12 |
| n | 1,899 | 2,443 | 4,342 |
| Average Number of Bicycles in Household (Total Conventional Bicycles and E-Bikes) | | | |
| Average Number of Bicycles in Household (Total Conventional Bicycles and E-Bikes) | 2.30 | 2.1 | 2.19 |
| n | 1,899 | 2,443 | 4,342 |
| Employment [%] | | | |
| In Education [%] | 13.3 | 18.3 | 16.1 |
| Employed Persons Aged Under 35 Years [%] | 17.7 | 14.0 | 15.7 |
| Employed Persons Aged 35 and More [%] | 47.1 | 36.5 | 41.1 |
| Non-Employed Persons [%] | 3.3 | 6.2 | 4.9 |
| Retired [%] | 18.6 | 24.9 | 22.2 |
| | 100 | 100 | 100 |
| n | 1,823 | 2,362 | 4,185 |
| Gender [%] | | | |
| Male [%] | 51.8 | 48.0 | 49.6 |
| Female [%] | 48.2 | 52.0 | 50.4 |
| | 100 | 100 | 100 |
| n | 1,868 | 2,427 | 4,295 |
| High-School Graduation | | | |
| No High School Diploma [%] | 26.7 | 25.6 | 26.1 |
| High-School Graduation [%] | 73.3 | 74.4 | 73.9 |
| | 100 | 100 | 100 |
| n | 1,865 | 2,372 | 4,236 |

Table S 5. Model 1: Meso-Scale Factors (Neighborhood)

| | Persons walking less than three to four days a week | Persons walking daily or almost daily | All Persons |
|--|---|---------------------------------------|-------------|
| Area Type by Predominant Building Type [%] | | | |
| (Detached) Single-Family Houses [%] | 30.5 | 18.1 | 23.5 |
| Detached Apartment Buildings [%] | 13.5 | 13.6 | 13.6 |
| Rowed Apartment Buildings in Residential Areas [%] | 35.1 | 33.5 | 34.2 |
| Rowed Apartment Buildings in Mixed Areas [%] | 20.9 | 34.8 | 28.7 |
| | 100 | 100 | 100 |
| n | 1,947 | 2,476 | 4,423 |
| Accessibility of Facilities of Daily Needs [%] | | | |
| Less Than 5 Facilities of Daily Needs Accessible in a 5-Minute Walk [%] | 91.6 | 85.1 | 87.9 |
| Accessibility of 5 out of 5 Facilities of Daily Needs in a 5-Minute Walk [%] | 8.4 | 14.9 | 12.1 |
| | 100 | 100 | 100 |
| n | 2,007 | 2,630 | 4,637 |
| Accessibility of Public Transport [%] | | | |
| No Public Transport Mode Accessible in a 5-Minute Walk [%] | 22.8 | 16.3 | 19.1 |
| Accessibility of at Least One Public Transport Mode in a 5-Minute Walk [%] | 77.2 | 83.7 | 80.9 |
| | 100 | 100 | 100 |
| n | 2,007 | 2,630 | 4,637 |

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Table S 6. Model 1: Micro-Scale Factors (Streetscape)

| | Persons walking less than three to four days a week | | | Persons walking daily or almost daily | | | All Persons | | |
|---|---|---------------------------|-----------|---------------------------------------|---------------------------|-----------|-----------------------------|---------------------------|-----------|
| | (Some-what) Unimportant [%] | (Some-what) Important [%] | n | (Some-what) Unimportant [%] | (Some-what) Important [%] | n | (Some-what) Unimportant [%] | (Some-what) Important [%] | n |
| High Surface Quality (Flat, Non-Slip, Without Damage) | 10.2 | 89.8 | 100 2,005 | 9.4 | 90.6 | 100 2,626 | 9.7 | 90.3 | 100 4,631 |
| Lot of Space to Walk | 10.1 | 89.9 | 100 1,998 | 6.4 | 93.6 | 100 2,615 | 8.0 | 92.0 | 100 4,613 |
| Street Furniture | 19.7 | 80.3 | 100 2,003 | 15.3 | 84.7 | 100 2,614 | 17.2 | 82.8 | 100 4,617 |
| Public Toilets | 49.6 | 50.4 | 100 2,000 | 48.9 | 51.1 | 100 2,609 | 49.2 | 50.8 | 100 4,610 |
| Good Lighting | 5.5 | 94.5 | 100 2,005 | 4.9 | 95.1 | 100 2,618 | 5.1 | 94.9 | 100 4,623 |
| Trees and Planting Along Sidewalks | 7.1 | 92.9 | 100 2,004 | 6.4 | 93.6 | 100 2,620 | 6.7 | 93.3 | 100 4,624 |
| First Floor Area With Shop Windows and/or Gastronomy Along the Sidewalks | 36.2 | 63.8 | 100 1,998 | 36.0 | 64.0 | 100 2,613 | 36.1 | 63.9 | 100 4,611 |
| Attractive Buildings (e.g. Façade) | 21.7 | 78.3 | 100 1,998 | 20.2 | 79.8 | 100 2,620 | 20.9 | 79.1 | 100 4,618 |
| Appropriate Height of Buildings in Relation to the Street Space (Streetscape Proportions) | 38.6 | 61.4 | 100 2,001 | 38.5 | 61.5 | 100 2,620 | 38.6 | 61.4 | 100 4,621 |
| Low Vehicle Traffic | 20.7 | 79.3 | 100 1,997 | 20.1 | 79.9 | 100 2,621 | 20.4 | 79.6 | 100 4,619 |
| Low Speed of Vehicle Traffic | 18.8 | 81.2 | 100 2,002 | 17.8 | 82.2 | 100 2,612 | 18.2 | 81.8 | 100 4,614 |
| Crime-Related Security | 4.0 | 96.0 | 100 2,004 | 2.7 | 97.3 | 100 2,617 | 3.3 | 96.7 | 100 4,621 |
| Traffic Accident Safety | 3.4 | 96.6 | 100 2,002 | 2.1 | 97.9 | 100 2,622 | 2.7 | 97.3 | 100 4,624 |
| Safe Crossings | 5.6 | 94.4 | 100 1,998 | 4.6 | 95.4 | 100 2,619 | 5.1 | 94.9 | 100 4,617 |

Table S 7. Model 1: Further Descriptives: Perception of Walking Characteristics

| | Persons walking less than three to four days a week | | Persons walking daily or almost daily | | All Persons | |
|--|---|-------|---------------------------------------|-------|--------------|-------|
| | Average (SD) | n | Average (SD) | n | Average (SD) | n |
| <i>I consider walking to be...(Scale: -10 ... +10)</i> | | | | | | |
| Monotonous vs. varying | 1.6 (5.0) | 1,937 | 3.7 (4.6) | 2,508 | 2.8 (4.9) | 4,446 |
| Boring vs. interesting | 1.5 (4.8) | 1,936 | 3.5 (4.4) | 2,508 | 2.6 (4.7) | 4,444 |
| Time-consuming vs. time saving | -2.6 (4.4) | 1,936 | -0.6 (4.6) | 2,506 | -1.4 (4.6) | 4,442 |
| Unflexible vs. flexible | 2.5 (4.7) | 1,937 | 4.6 (4.1) | 2,507 | 3.7 (4.5) | 4,443 |
| Exhausting vs. easy | 3.3 (5.2) | 1,936 | 4.9 (4.6) | 2,507 | 4.2 (4.9) | 4,444 |
| Uncomfortable vs. comfortable | 3.1 (4.7) | 1,936 | 4.8 (4.2) | 2,507 | 4.1 (4.5) | 4,443 |
| Not socially accepted vs. socially accepted | 3.2 (4.5) | 1,936 | 4.0 (4.4) | 2,506 | 3.7 (4.5) | 4,442 |
| Unsecure crime-related vs. secure crime-related | 1.0 (5.2) | 1,936 | 1.5 (5.0) | 2,506 | 1.3 (5.1) | 4,443 |
| Unsafe traffic-related vs. safe traffic-related | 2.6 (4.7) | 1,936 | 2.8 (4.7) | 2,506 | 2.7 (4.7) | 4,442 |
| Badly plannable in terms of time vs. well plannable in terms of time | 2.6 (5.3) | 1,936 | 4.7 (4.6) | 2,506 | 3.8 (5.0) | 4,442 |

Table S 8. Model 1: Further Descriptives: Mode Choice Criteria

| | Persons walking less than three to four days a week | | | Persons walking daily or almost daily | | | All Persons | | |
|---|---|---------------------------|-----------|---------------------------------------|---------------------------|-----------|-----------------------------|---------------------------|-----------|
| | (Some-what) Unimportant [%] | (Some-what) Important [%] | n | (Some-what) Unimportant [%] | (Some-what) Important [%] | n | (Some-what) Unimportant [%] | (Some-what) Important [%] | n |
| Foreseeable travel time | 5.1 | 94.9 | 100 1,994 | 5.5 | 94.5 | 100 2,619 | 5.3 | 94.7 | 100 4,614 |
| Short travel or walking time | 6.1 | 93.9 | 100 1,990 | 7.2 | 92.8 | 100 2,607 | 6.7 | 93.3 | 100 4,596 |
| Low costs | 15.5 | 84.5 | 100 1,988 | 12.1 | 87.9 | 100 2,627 | 13.5 | 86.5 | 100 4,616 |
| High Comfort | 36.5 | 63.5 | 100 1,990 | 39.9 | 60.1 | 100 2,625 | 38.4 | 61.6 | 100 4,614 |
| Internet access available | 74.3 | 25.7 | 100 1,994 | 69.1 | 30.9 | 100 2,625 | 71.4 | 28.6 | 100 4,619 |
| Available mobile network | 40.9 | 59.1 | 100 1,993 | 39.0 | 61.0 | 100 2,622 | 39.8 | 60.2 | 100 4,615 |
| Crime-Related Security | 7.2 | 92.8 | 100 1,993 | 5.0 | 95.0 | 100 2,622 | 5.9 | 94.1 | 100 4,615 |
| Traffic Safety | 7.9 | 92.1 | 100 1,997 | 3.6 | 96.4 | 100 2,624 | 5.5 | 94.5 | 100 4,621 |
| Low exposure to air pollution | 19.9 | 80.1 | 100 1,991 | 15.8 | 84.2 | 100 2,624 | 17.5 | 82.5 | 100 4,616 |
| Privacy (I do not travel with unknown people) | 65.1 | 34.9 | 100 1,986 | 65.7 | 34.3 | 100 2,616 | 65.5 | 34.5 | 100 4,602 |
| Benefits for my health | 27.3 | 72.7 | 100 1,989 | 21.5 | 78.5 | 100 2,617 | 24.0 | 76.0 | 100 4,606 |
| High environmental friendliness | 22.6 | 77.4 | 100 1,996 | 15.4 | 84.6 | 100 2,620 | 18.5 | 81.5 | 100 4,615 |
| Flexible departure times | 10.2 | 89.8 | 100 1,994 | 11.8 | 88.2 | 100 2,623 | 11.1 | 88.9 | 100 4,617 |

Model 2: Utilitarian Walking

Table S 9. Model 2: Socio-Demographic and Socio-Economic Factors

| | Persons walking less than three to four days a week | Persons walking daily or almost daily | All Persons |
|--|---|---------------------------------------|-------------|
| Children in Household [%] | | | |
| No Child(ren) [%] | 83.9 | 85.4 | 85.0 |
| Child(ren) in Household [%] | 16.1 | 14.6 | 15.0 |
| | 100 | 100 | 100 |
| n | 572 | 1,427 | 1,999 |
| Average Number of Cars in Household (Total Private and Business Cars) | | | |
| Average Number of Cars in Household (Total Private and Business Cars) | 0.92 | 0.8 | 0.83 |
| n | 571 | 1,420 | 1,991 |
| Average Number of Bicycles in Household (Total Conventional Bicycles and E-Bikes) | | | |
| Average Number of Bicycles in Household (Total Conventional Bicycles and E-Bikes) | 2.05 | 2.0 | 1.99 |
| n | 571 | 1,420 | 1,991 |
| Employment [%] | | | |
| In Education [%] | 20.6 | 23.3 | 22.5 |
| Employed Persons Aged Under 35 Years [%] | 24.9 | 15.3 | 18.1 |
| Employed Persons Aged 35 and More [%] | 37.1 | 32.6 | 33.9 |
| Non-Employed Persons [%] | 3.4 | 5.6 | 5.0 |
| Retired [%] | 14.0 | 23.1 | 20.5 |
| | 100 | 100 | 100 |
| n | 555 | 1,378 | 1,934 |
| Gender [%] | | | |
| Male [%] | 52.9 | 47.7 | 49.2 |
| Female [%] | 47.1 | 52.3 | 50.8 |
| | 100 | 100 | 100 |
| n | 566 | 1,411 | 1,976 |
| High-School Graduation [%] | | | |
| No High School Diploma [%] | 21.9 | 25.2 | 24.2 |
| High-School Graduation [%] | 78.1 | 74.8 | 75.8 |
| | 100 | 100 | 100 |
| n | 1,865 | 2,372 | 4,236 |

Table S 10. Model 2: Meso-Scale Factors (Neighborhood)

| | Persons walking less than three to four days a week | Persons walking daily or almost daily | All Persons |
|--|---|---------------------------------------|-------------|
| Area Type by Predominant Building Type [%] | | | |
| (Detached) Single-Family Houses [%] | 16.8 | 11.6 | 13.1 |
| Detached Apartment Buildings [%] | 8.2 | 10.9 | 10.1 |
| Rowed Apartment Buildings in Residential Areas [%] | 38.5 | 33.5 | 35.0 |
| Rowed Apartment Buildings in Mixed Areas [%] | 36.4 | 43.9 | 41.8 |
| | 100 | 100 | 100 |
| n | 568 | 1,390 | 1,958 |
| Accessibility of Facilities of Daily Needs [%] | | | |
| Less Than 5 Facilities of Daily Needs Accessible in a 5-Minute Walk [%] | 84.3 | 80.7 | 81.7 |
| Accessibility of 5 out of 5 Facilities of Daily Needs in a 5-Minute Walk [%] | 15.7 | 19.3 | 18.3 |
| | 100 | 100 | 100 |
| n | 583 | 1,453 | 2,036 |
| Accessibility of Public Transport [%] | | | |
| No Public Transport Mode Accessible in a 5-Minute Walk [%] | 14.0 | 13.4 | 13.6 |
| Accessibility of at Least One Public Transport Mode in a 5-Minute Walk [%] | 86.0 | 86.6 | 86.4 |
| | 100 | 100 | 100 |
| n | 583 | 1,453 | 2,036 |

Table S 11. Model 2: Micro-Scale Factors (Streetscape)

| | Persons walking less than three to four days a week | | | | Persons walking daily or almost daily | | | | All Persons | | | |
|--|---|---------------------|-----|-----|---------------------------------------|---------------------|-----|-------|----------------------------|---------------------|-----|-------|
| | I (fully) do not agree [%] | I (fully) agree [%] | 100 | n | I (fully) do not agree [%] | I (fully) agree [%] | 100 | n | I (fully) do not agree [%] | I (fully) agree [%] | 100 | n |
| "The Walk Is Not Long" | 6.0 | 94.0 | 100 | 579 | 4.3 | 95.7 | 100 | 1,440 | 4.8 | 95.2 | 100 | 2,018 |
| "It Goes the Fastest by Walking" | 22.8 | 77.2 | 100 | 570 | 20.0 | 80.0 | 100 | 1,433 | 20.8 | 79.2 | 100 | 2,002 |
| "It Is Not Hilly" | 36.0 | 64.0 | 100 | 538 | 28.8 | 71.2 | 100 | 1,392 | 30.8 | 69.2 | 100 | 1,930 |
| "Sidewalks Are Sufficiently Wide" | 23.9 | 76.1 | 100 | 557 | 22.1 | 77.9 | 100 | 1,409 | 22.6 | 77.4 | 100 | 1,966 |
| "Sidewalks Are Easy To Walk On" | 18.0 | 82.0 | 100 | 563 | 17.0 | 83.0 | 100 | 1,411 | 17.3 | 82.7 | 100 | 1,974 |
| "Sidewalks Are Well Lit" | 25.3 | 74.7 | 100 | 544 | 24.2 | 75.8 | 100 | 1,399 | 24.5 | 75.5 | 100 | 1,942 |
| "Along the Walkway There Are Attractive Green Areas" | 66.7 | 33.3 | 100 | 558 | 59.2 | 40.8 | 100 | 1,383 | 61.4 | 38.6 | 100 | 1,941 |
| "Along the Walkway There Are Opportunities To Sit" | 87.5 | 12.5 | 100 | 523 | 83.9 | 16.1 | 100 | 1,287 | 84.9 | 15.1 | 100 | 1,810 |
| "Along the Walkway Are Attractive Buildings" | 73.0 | 27.0 | 100 | 535 | 63.6 | 36.4 | 100 | 1,361 | 66.3 | 33.7 | 100 | 1,896 |
| "Along The Walkway Traffic Is Low" | 60.9 | 39.1 | 100 | 559 | 62.6 | 37.4 | 100 | 1,371 | 62.1 | 37.9 | 100 | 1,930 |
| "Along The Walkway It Is Safe" (Traffic-Related) | 37.4 | 62.6 | 100 | 537 | 38.3 | 61.7 | 100 | 1,364 | 38.0 | 62.0 | 100 | 1,902 |
| "Along The Walkway It Is Secure" (Crime-Related) | 48.3 | 51.7 | 100 | 508 | 48.8 | 51.2 | 100 | 1,312 | 48.7 | 51.3 | 100 | 1,820 |

Table S 12. Model 2: Further Descriptives: Perception of Walking Characteristics

| <i>I consider walking to be...</i> (Scale: -10 ... +10) | Persons walking less than three to four days a week | | Persons walking daily or almost daily | | All Persons | |
|--|---|-----|---------------------------------------|------|--------------|------|
| | Average (SD) | n | Average (SD) | n | Average (SD) | n |
| Monotonous vs. varying | 2.4 (4.8) | 583 | 3.8 (4.7) | 1453 | 3.4 (4.8) | 2036 |
| Boring vs. interesting | 2.3 (4.7) | 583 | 3.8 (4.3) | 1453 | 3.3 (4.5) | 2036 |
| Time-consuming vs. time saving | -1.7 (4.1) | 583 | -0.1 (4.6) | 1453 | -0.6 (4.5) | 2036 |
| Unflexible vs. flexible | 3.2 (4.3) | 583 | 4.9 (4.1) | 1453 | 4.5 (4.2) | 2036 |
| Exhausting vs. easy | 3.7 (5.0) | 583 | 5.1 (4.5) | 1453 | 4.7 (4.7) | 2036 |
| Uncomfortable vs. comfortable | 3.8 (4.5) | 583 | 5.1 (4.1) | 1453 | 4.7 (4.3) | 2036 |
| Not socially accepted vs. socially accepted | 3.5 (4.6) | 583 | 4.1 (4.6) | 1453 | 3.9 (4.6) | 2036 |
| Unsecure crime-related vs. secure crime-related | 1.7 (4.9) | 583 | 1.4 (5.1) | 1453 | 1.5 (5.0) | 2036 |
| Unsafe traffic-related vs. safe traffic-related | 3.1 (4.6) | 583 | 2.7 (4.8) | 1453 | 2.8 (4.7) | 2036 |
| Badly plannable in terms of time vs. well plannable in terms of time | 3.5 (4.9) | 583 | 4.8 (4.7) | 1453 | 4.4 (4.8) | 2036 |

Table S 13. Model 2: Further Descriptives: Mode Choice Criteria

| | Persons walking less than three to four days a week | | | Persons walking daily or almost daily | | | All Persons | | | | | |
|---|---|---------------------------|-----|---------------------------------------|---------------------------|------|-----------------------------|---------------------------|------|------|-----|-------|
| | (Some-what) Unimportant [%] | (Some-what) Important [%] | n | (Some-what) Unimportant [%] | (Some-what) Important [%] | n | (Some-what) Unimportant [%] | (Some-what) Important [%] | n | | | |
| Foreseeable travel time | 5.5 | 94.5 | 100 | 579 | 5.2 | 94.8 | 100 | 1,447 | 5.3 | 94.7 | 100 | 2,025 |
| Short travel or walking time | 7.5 | 92.5 | 100 | 581 | 7.4 | 92.6 | 100 | 1,445 | 7.4 | 92.6 | 100 | 2,026 |
| Low costs | 12.4 | 87.6 | 100 | 574 | 8.6 | 91.4 | 100 | 1,452 | 9.7 | 90.3 | 100 | 2,026 |
| High Comfort | 44.8 | 55.2 | 100 | 578 | 39.6 | 60.4 | 100 | 1,449 | 41.1 | 58.9 | 100 | 2,027 |
| Internet access available | 71.5 | 28.5 | 100 | 581 | 68.3 | 31.7 | 100 | 1,450 | 69.2 | 30.8 | 100 | 2,031 |
| Available mobile network | 38.9 | 61.1 | 100 | 577 | 38.7 | 61.3 | 100 | 1,446 | 38.8 | 61.2 | 100 | 2,023 |
| Crime-Related Security | 8.9 | 91.1 | 100 | 580 | 4.6 | 95.4 | 100 | 1,450 | 5.8 | 94.2 | 100 | 2,030 |
| Traffic Safety | 8.3 | 91.7 | 100 | 581 | 3.6 | 96.4 | 100 | 1,450 | 5.0 | 95.0 | 100 | 2,031 |
| Low exposure to air pollution | 16.9 | 83.1 | 100 | 577 | 15.0 | 85.0 | 100 | 1,449 | 15.5 | 84.5 | 100 | 2,025 |
| Privacy (I do not travel with unknown people) | 67.7 | 32.3 | 100 | 580 | 68.5 | 31.5 | 100 | 1,442 | 68.3 | 31.7 | 100 | 2,022 |
| Benefits for my health | 24.3 | 75.7 | 100 | 578 | 21.0 | 79.0 | 100 | 1,445 | 21.9 | 78.1 | 100 | 2,023 |
| High environmental friendliness | 18.2 | 81.8 | 100 | 581 | 12.8 | 87.2 | 100 | 1,444 | 14.3 | 85.7 | 100 | 2,026 |
| Flexible departure times | 12.2 | 87.8 | 100 | 580 | 11.3 | 88.7 | 100 | 1,444 | 11.6 | 88.4 | 100 | 2,030 |