

Preferred citation style

Axhausen, K.W. (2006) New survey items for a fuller description of traveler behaviour (Biographies and social networks), TRB Travel Demand Forecasting Conference, Austin, May 2006.

New survey items for a fuller description of traveler behaviour (Biographies and social networks)

KW Axhausen

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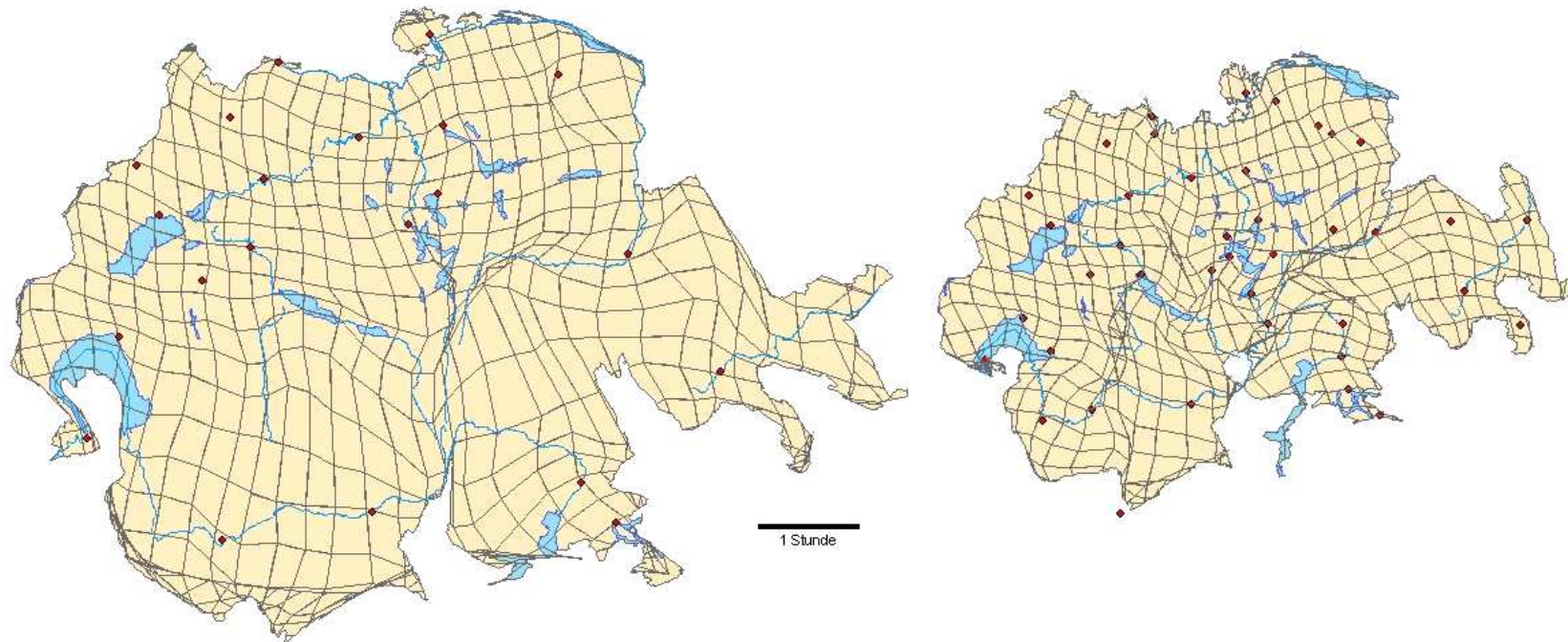
May 2006

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Institute for Transport Planning and Systems

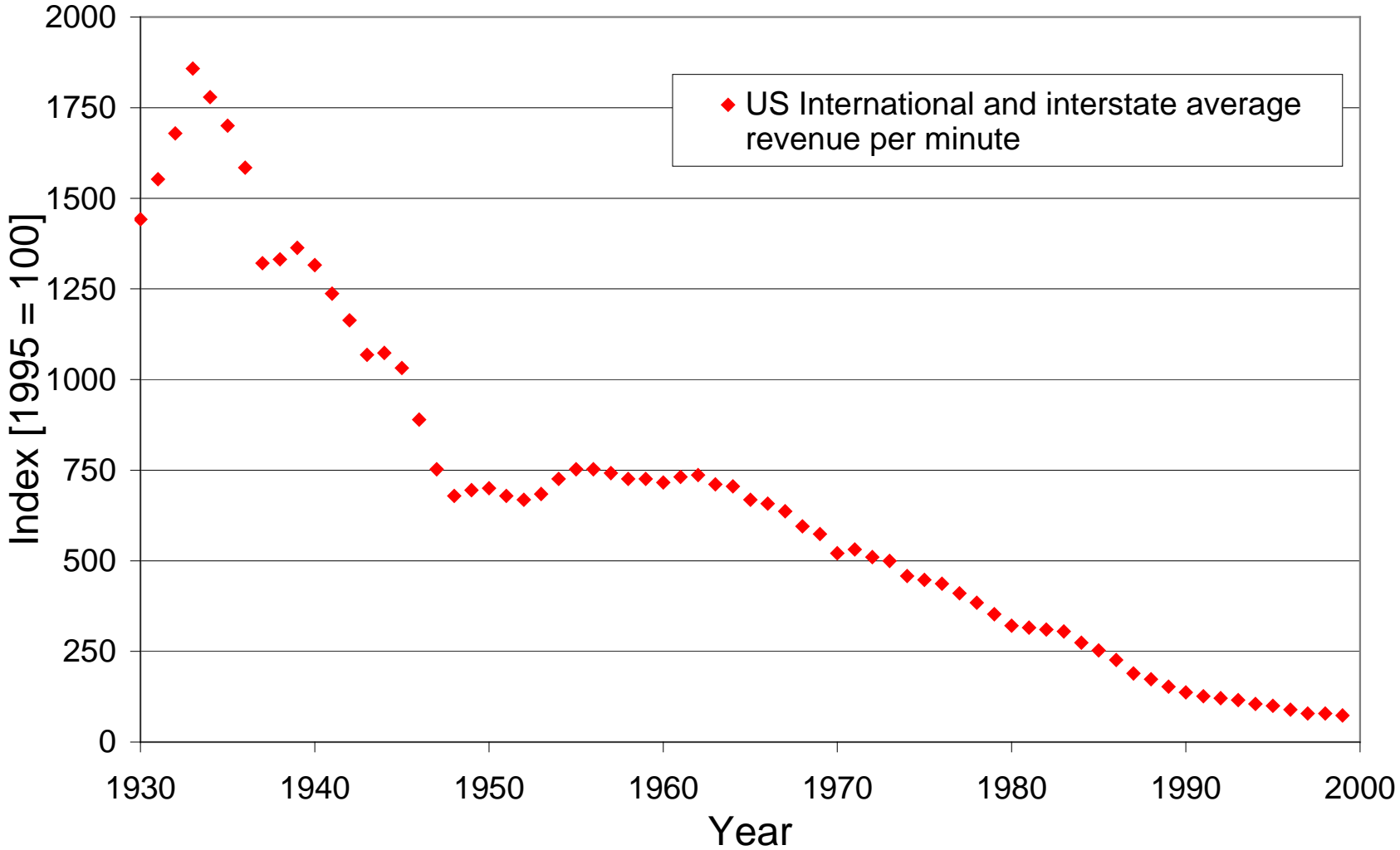
ETH

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Trends: Road travel time scaled Switzerland (1950 & 2000)

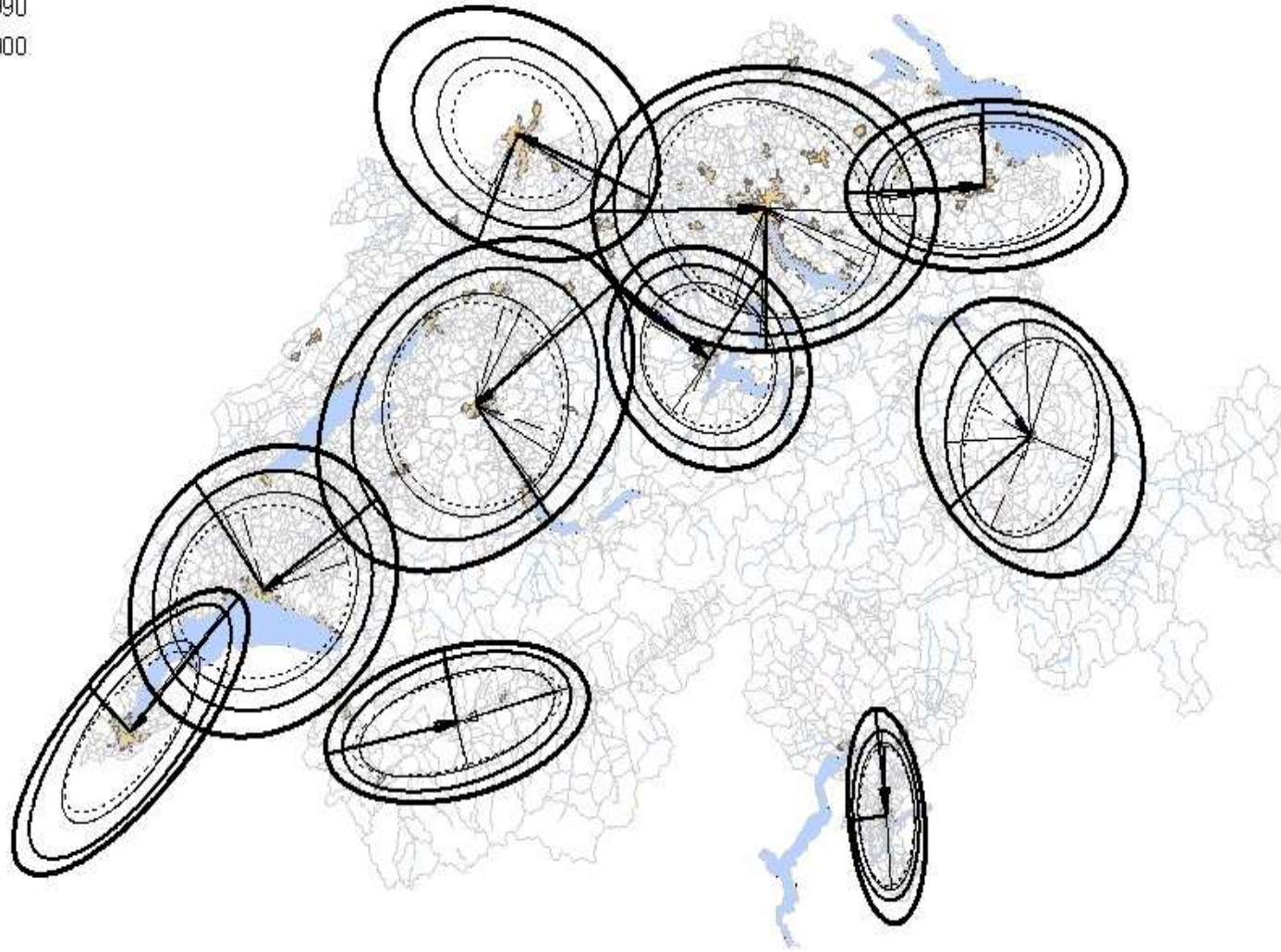
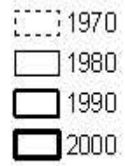


Trends: Real price of telecommunication



Adapted from FCC (2001)

Response: Swiss Suburbanisation since 1970



Adapted from Botte, 2003

How do we explain behaviour at the microscopic level ?

Elements:

- Generalised costs of the route-mode-location alternative
- Budgets and longer term commitments
- Taste (Values, attitudes, life style) by socio demographics

- Personal world (i.e. Mental map)
- Social network membership

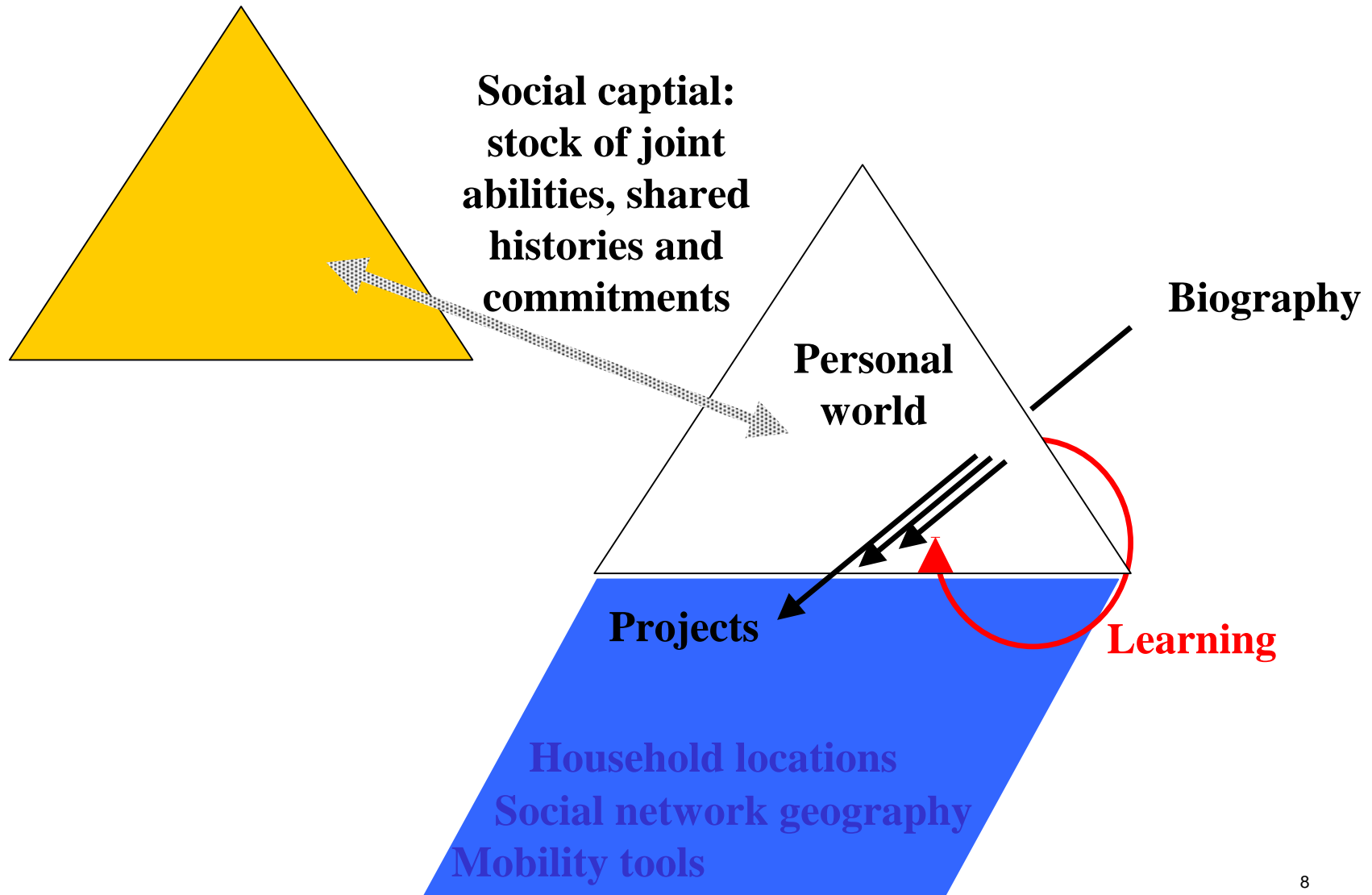
Generalised cost of a route-mode-destination alternative

Elements:

- (Comfort and risk adjusted) time spent traveling, inc. schedule delay (relative to intended arrival time)
- (Decision time-frame relevant) monetary expenditure

- (Comfort and risk adjusted) time spent at the location by type
- Activity expenditure
- Social content

The „network actor“ in a dynamic social context



What are the new research questions ?

Travel:

- Can we measure the **social content** ?

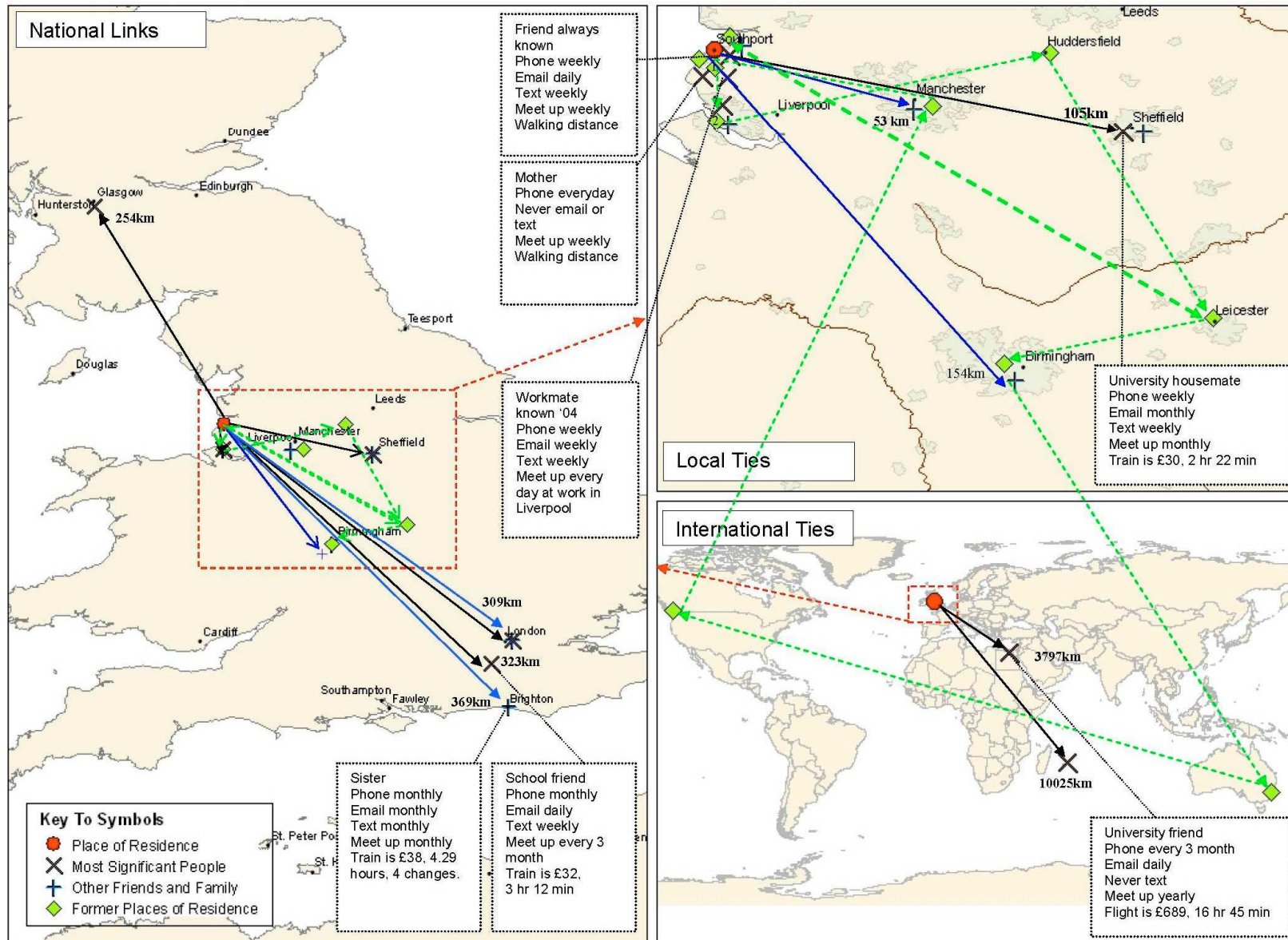
Person:

- [Can we measure the **personal world** ?]
- Can we retrieve the (mobility) **biographies** ?
- Can we measure the **social network** geography ?
- Can we measure the **activity spaces** ?

System:

- How fast has it changed ?
- How large are the social costs ?
- How can we steer it ?

Biography of a male architect, early-30ies



Measurement: Personal world

Personal world as „mental map“ and „expectation space“:

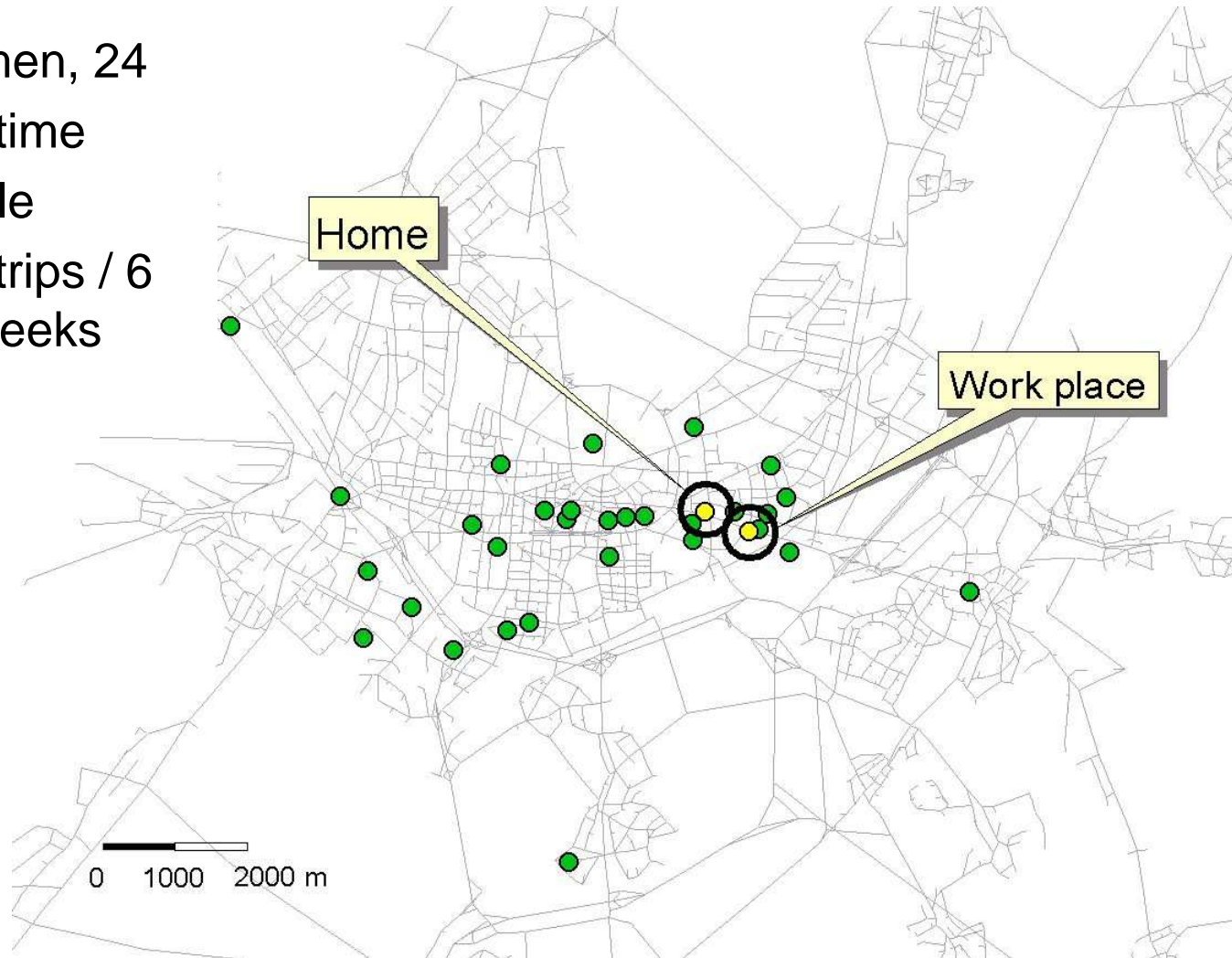
- Sketching
- Think aloud protocols
- Spatial tasks

Personal worlds as „activity space“ of visited locations:

- Diaries
- GPS/GSM tracing
- Data traces (payments of all kinds, CCTV, phone and pc use)

Example of an activity space

Women, 24
Full-time
Single
216 trips / 6
weeks

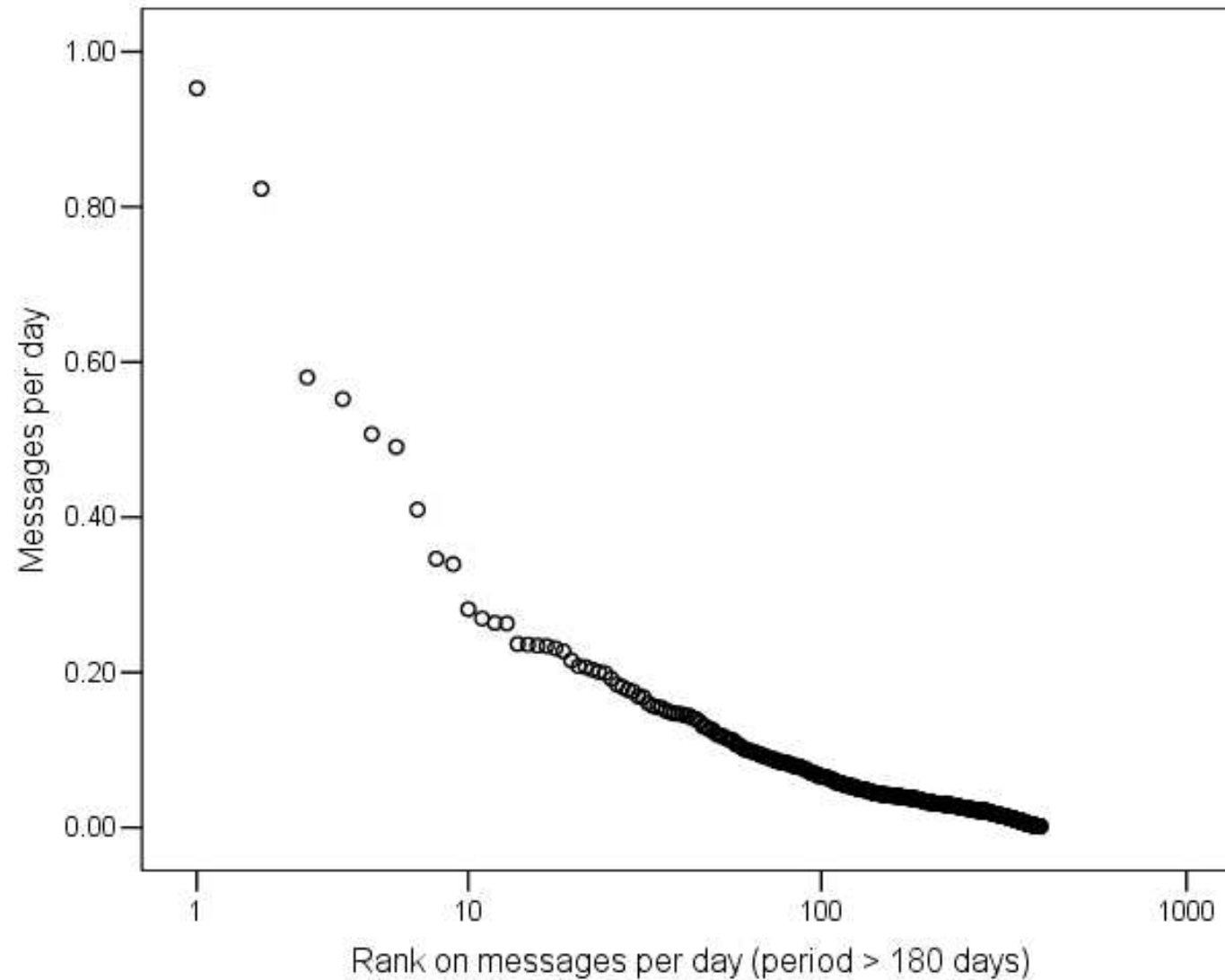


Measurement: Social network geographies

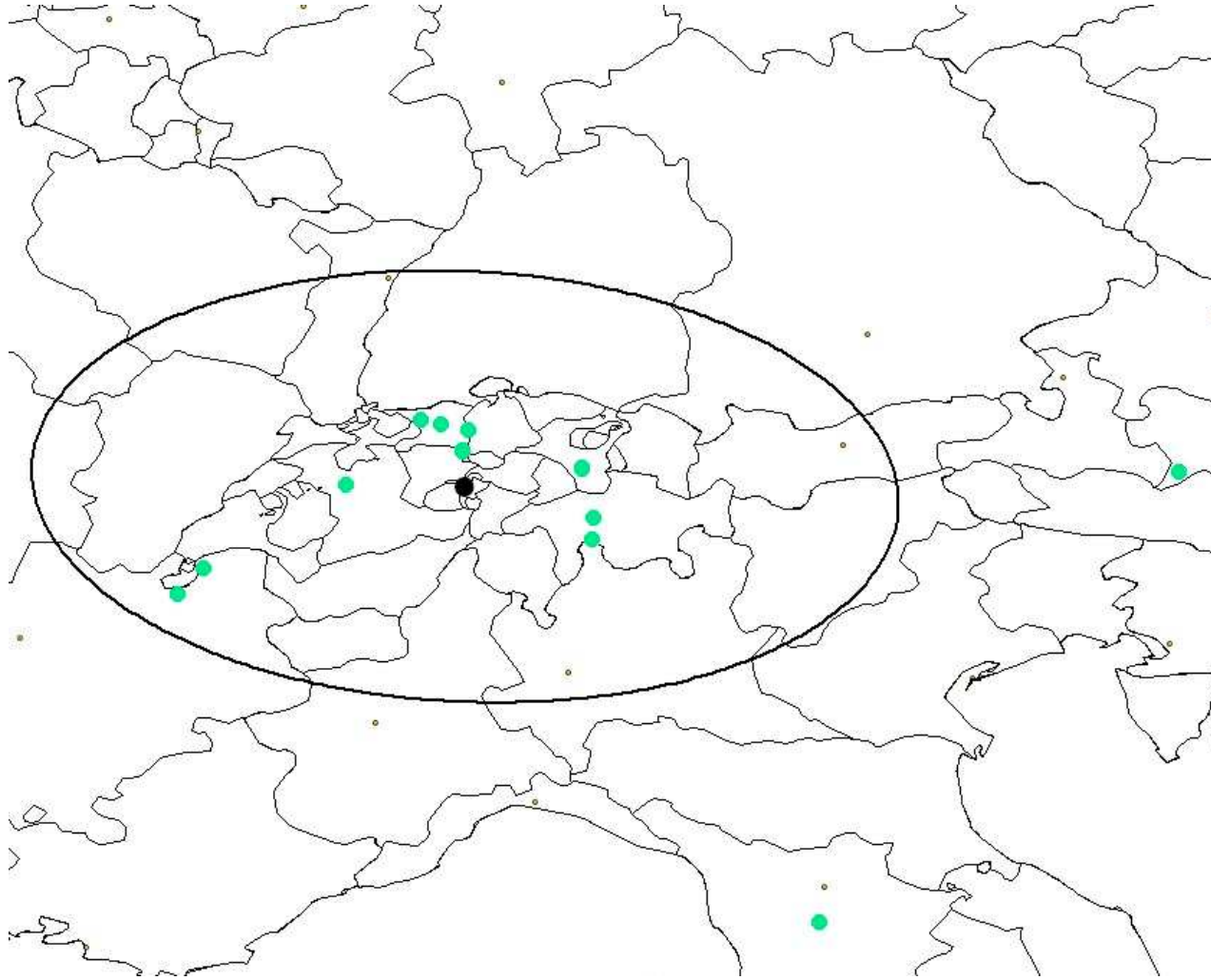
Instruments:

- Name generators (and interpreters)
- Traces of contacts (email, SMS, IM, internet chat, letters, phone records, etc.)
- Diary – based prompting

Contacts and contact frequency – emails to kwa (Outlook)

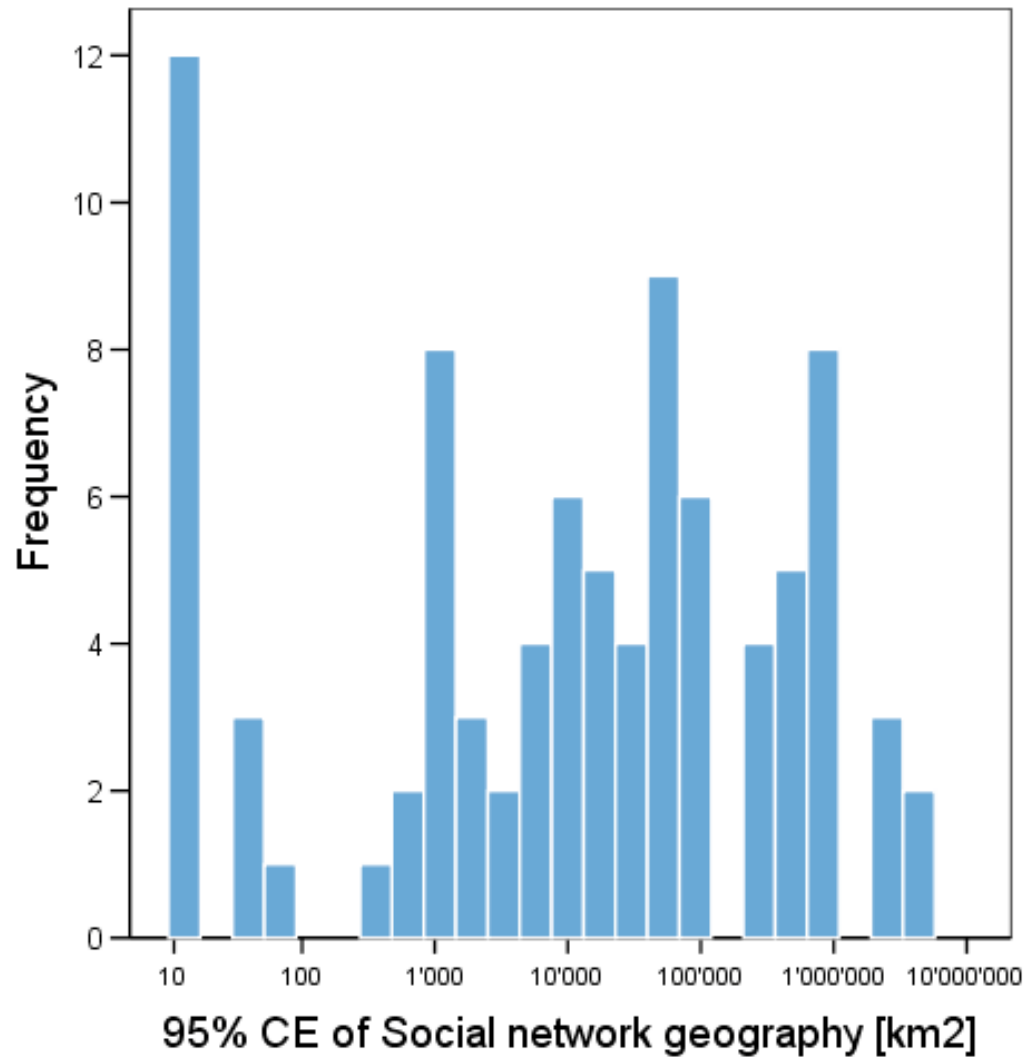


Example of a social network geography



Female, 28,
4 moves,

Size of social network geometries: 95% CE



Measurement: Social content

New diary items:

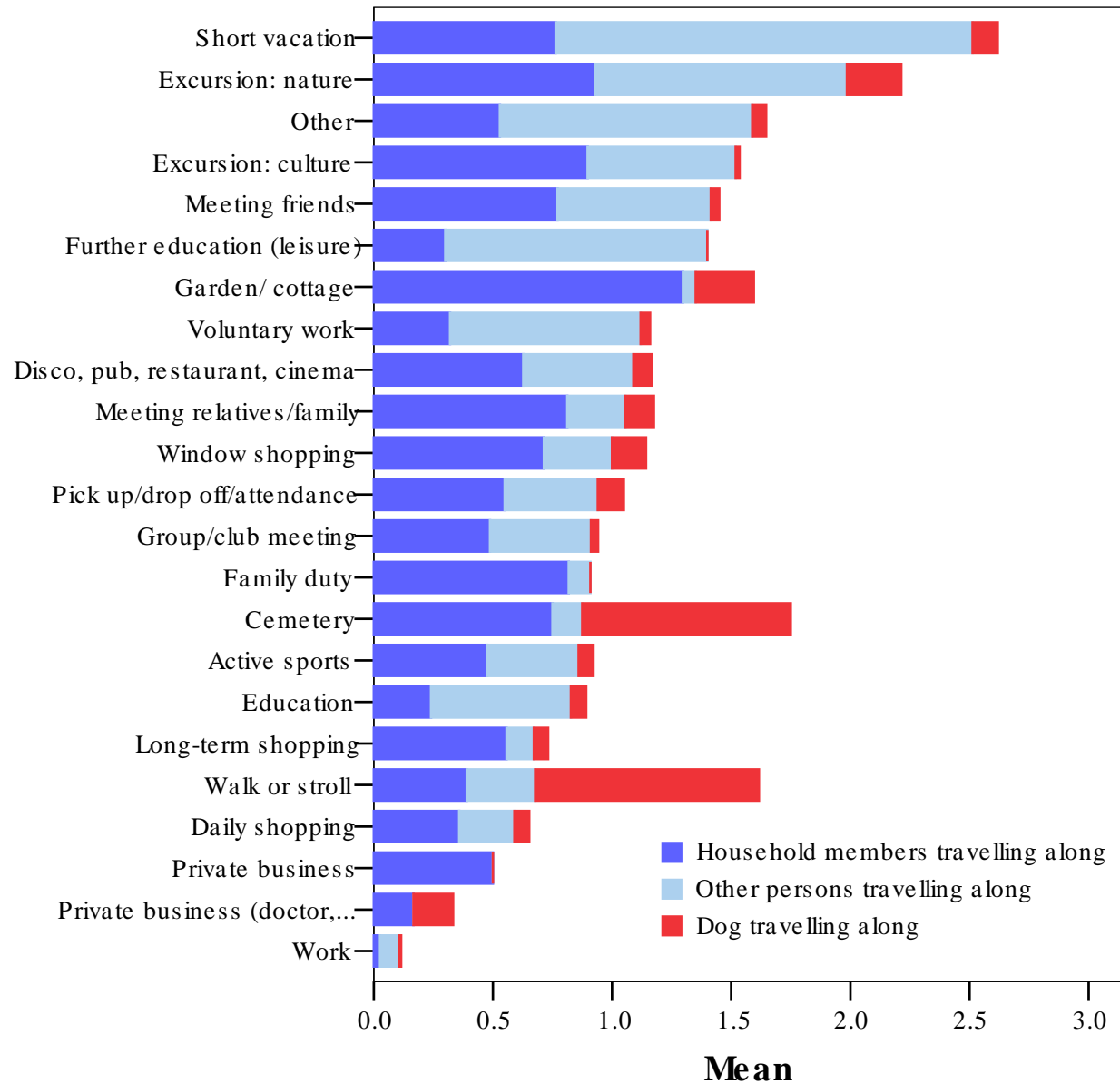
- Who is participating ? (travel and activity)
- Who is paying what share ? (travel and activity)

- For whom is the activity undertaken ?
- What commitment is being fulfilled ?

- How long has it been planned ? And by whom ?
- Was there a substitute ?

- How often have you been here before ?

Social content of travel (2003 Thurgau): Who is travelling ?



First fieldwork experiences

Response rates:

- 10% long duration diaries (with incentive)
- 10% social network interviews (with incentive)
- 15% mobility biographies (without motivation call)
- 30% mobility biographies (with motivation call)

No differences in travel and moving behaviour detected !

Next steps

- (Semi-automatic) data extraction from written traces
- Experiments with the social content questions
- Integration of social network geographies
- Integration of mobility biographies
- Experiments with activity and travel “summary questionnaires”

Literature

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