Exploring interaction processes between cyclists and car drivers

– a Grounded Theory approach

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Cyclist safety in Vienna

6% of all trips in Vienna
12% of killed or badly injured (2013)

Intersections are hot spots (Austrian Road Safety Board)

What is going on at intersections?

→ focus on interaction
Objectives

Grounded theory about interaction processes:

**Strategies:** Identify & collect different forms of interactions and their intention

**Interrelations:** Identify key factors that influence interaction processes

**Image & status** of cyclists & car drivers as road users: Power relations in road traffic

Methodology

**Grounded Theory** (Glaser/ Strauss 1967)

**Theory-Triangulation**

Actor-Network-Theory (Callon/Latour 1992)
Symbolic Interactionism (Mead/Blumer 1969)
Diamond model (Risser 2000)
GADGET matrix (Hatakka et al. 1999)

**Data triangulation** (mixed methods approach)
(Creswell & PlanoClark 2008)
### Overview Methodology

#### Data triangulation

<table>
<thead>
<tr>
<th>Methodology</th>
<th>in-depth interviews</th>
<th>FGI</th>
<th>observation</th>
<th>questionnaire</th>
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</thead>
<tbody>
<tr>
<td>Identity Strategies</td>
<td>intentions &amp; forms of interactions</td>
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<td>validation &amp; hypotheses</td>
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<tr>
<td>Explore Interrelations</td>
<td>key factors</td>
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<td>demonstration of value</td>
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<td>Value of road users</td>
<td>status</td>
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#### Theory triangulation

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<tr>
<td>Grounded Theory</td>
<td>key factors</td>
<td>mutual process symbols</td>
<td>structuring traffic system</td>
<td>different levels</td>
</tr>
</tbody>
</table>

### Project aims

- Identify Strategies
- Explore Interrelations
- Value of road users

- Grounded Theory: Emerge theory about interaction processes

### Project background

**Methodology**

- In progress
- In-depth interviews with car drivers and bicyclists
- Theoretical sampling: Gender / Age / driving experience (Renge 2000)

**Results**

Work in progress: 6 interviews (3 bicyclists/3 car drivers)
**Data Collection: Observation**

**Project background**

**Methodology**

In preparation stage

Results

**Video observation** on different intersections

3 cameras, 4 intersections – 100 test drivers, 100 control group drivers

Analysis:

category scheme

INTERACT

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**DC: Questionnaire & Focus groups**

**Project background**

**Objectives**

Standardized questionnaire with bicyclists after test run

Focus Group discussions with bicyclists / (car drivers?): further data collection

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Preliminary results

**Strategies:**
Intention of interactions vs. Interpretation of Interactions

<table>
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<tr>
<th>Interaction</th>
<th>cyclists’ view</th>
<th>car drivers view</th>
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<tr>
<td>ignore red lights</td>
<td>safety margin</td>
<td>arrogance of cyclists</td>
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<tr>
<td></td>
<td>more comfort, smooth flow</td>
<td>disrespect of rules</td>
</tr>
<tr>
<td>overtaking cyclists</td>
<td>recklessness of car drivers</td>
<td>tailgating</td>
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</table>

**Interrelations:**
Self-perception correlates with rule compliance

“The traffic rules are made for cars. I understand why cyclists do not resepect those rules.” (Male cyclist, 20-30)
Preliminary results

**Image & status** of road users:
Cycling car drivers seem to have more willingness to „accept“ cyclists on the road

„Before I started to use the bike myself I used to overtake cyclists with narrow margin and thought they do not have any right to be on the road.“ (Female car driver, 30-40)

Thank you for your attention!

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