1. Motivation and Research Question: Social Contact and Spatial Contact Thesis

- Social contacts between natives and immigrants are negatively related to anti-immigrant or xenophobic attitudes (social contact thesis, Allport 1954).
- Here is an example with aggregate data:

In our study we ask whether this also holds in a geographical perspective for spatial contact opportunities between the native population and refugees.

- In existing research, this has mostly been operationalized by proportions of immigrants/foreigners in the respective regional context (cf. Weber 2015).
- In our study, we instead focus on the spatial distance between peoples' dwelling and refugee asylums, for which we use geographically referenced survey data in a local context.
- We hypothesize that an increasing spatial distance between peoples' dwelling and refugee asylums positively affects anti-refugee attitudes and protest behaviour against refugees.

2. Study Design

- Postal survey of the adult population in Mainz (Germany), autumn 2016.
- Street section sample (Bauer 2014): Geographic random sample of 68 street sections in residential areas in Mainz, containing 4000 households in which every second household was assembled with a questionnaire (N = 2000). Next-birthday method for random choice of respondents within households. Response rate = 29% (n = 580).

Main independent variables:

- Spatial distance between the respondents’ dwelling and the nearest refugees asylum (see the map on the right; mean=1.3km; SD=0.9km, range 0.1...6.6km).
- Self-reported personal contact with refugees (25%).

3. Results: Effects of Spatial and Social Distance on Attitudes and Protest vis-à-vis Refugees

- **Dependent variables:**
  - Attitude indicator I (1 = anti-refugee; 46%): “yes” to at least one of these items:
    - “I feel bothered by the refugees in Mainz.”
    - “Refugees should not stroll around in the city center of Mainz, but stay in their asylums.”
    - “I feel bothered if refugees live in my neighborhood.”
    - „The opening of a refugee asylum in my neighborhood would bother me.”
  - Attitude indicator II (1 = anti-refugee; 51%): „In your opinion, is it possible to receive more refugees in Mainz?“ (1 = no)
  - Protest behavior: (1 = anti-refugee; 19%): “yes” to at least one of these items:
    - „Expressed anger about the too liberal refugee policy in web forums or social media.”
    - „Voted for a party that seeks to limit the right for asylum.”
    - „Took part in rallies against refugees, for instance Pegida.”

<table>
<thead>
<tr>
<th>Anti-Refugee Attitudes I</th>
<th>Anti-Refugee Attitudes II</th>
<th>Protest against Refugees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance to refugee asylum (m)</td>
<td>0.144***</td>
<td>0.129*</td>
</tr>
<tr>
<td>Personal contact to refugees</td>
<td>-0.081</td>
<td>-0.129**</td>
</tr>
<tr>
<td>Age (decades)</td>
<td>0.024</td>
<td>0.039**</td>
</tr>
<tr>
<td>Sex (1 = female)</td>
<td>-0.024</td>
<td>0.037</td>
</tr>
<tr>
<td>Education (years)</td>
<td>-0.000</td>
<td>-0.036***</td>
</tr>
<tr>
<td>Self-rated social class</td>
<td>0.014</td>
<td>-0.000</td>
</tr>
<tr>
<td>Employment</td>
<td>0.005</td>
<td>0.021</td>
</tr>
<tr>
<td>Migration background</td>
<td>0.028</td>
<td>0.015</td>
</tr>
<tr>
<td>Personal contact to foreigners</td>
<td>-0.010</td>
<td>0.011</td>
</tr>
<tr>
<td>Self-rated left-right-orientation</td>
<td>0.130***</td>
<td>0.073***</td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>-0.048**</td>
<td>-0.011</td>
</tr>
<tr>
<td>Constant</td>
<td>0.113</td>
<td>-0.383</td>
</tr>
<tr>
<td>R²</td>
<td>0.029</td>
<td>0.268</td>
</tr>
<tr>
<td>Number of cases</td>
<td>283</td>
<td>283</td>
</tr>
</tbody>
</table>

Regression models are based on data-weighted persons in large households are undersampled by the sample design: multiply imputed data includes unmeasured regression coefficients. Levels of significance: *** p < 0.001; ** p < 0.01; * p < 0.05.

4. Discussion

- Our results (partly) confirm the spatial contact thesis. However, these findings certainly should be replicated in other studies.
- Our causal model might be underspecified, because we did not control for the variables/effects depicted in black and red color in the graph on the right.
- We did for instance not account for possible effects of attending informative meetings (e.g., by the municipal administration), which are probably correlated with openings of refugee asylums in neighborhoods and the dependent variables.

**Main results:**

- Anti-refugee attitudes increase with larger distances to refugee asylums.
- This is partly, but not completely, mediated by (lacking) personal contacts with refugees.
- We observe no distance effect on protest behavior against refugees.

**Literature:**