Equality and Sustainable Consumption in Capability Perspective

HDCA conference in Athens
2-4 September 2014
Equality and Sustainable Consumption in Capability Perspective

1. The Model of Sustainable Consumption in Capability Perspective
2. Data and Empirical Model
3. Empirical Results on Socio-economic Impacts
   1. Frequencies
   2. Regression-Analyses
4. Conclusion
Equality and Sustainable Consumption: The Theoretical Model

**Capability Approach:**
- Conversion factors
- Resources
- (Preference Formation)
- Capability Set
  - Choice
  - Achieved functionings

**Theory of Planned Behavior**
- Social Norms
- Attitudes
- Perceived Behavioral Control
  - Intention
  - Behavior

Conversion factors:  
- Social norms

Attitudes  
Preference formation

Capability set  
Perceived behavioral control

Intention  
Choice

Behaviour  
Achieved functionings
Equality and Sustainable Consumption: Data

- **Innovation Sample of the German Socio-Economic Panel in 2012**
- **Two behaviors:**
  - *Purchase of organic food (N=536)*
    56.9% female; $M_{age} = 51.02$ years, $SD_{age} = 18.53$ years
  - *Use of public transport or bike for inner-city rides (N=363)*
    45.6% female; $M_{age} = 52.39$ years, $SD_{age} = 15.89$ years
Equality and Sustainable Consumption: Empirical Model

Conversion factors

- Descriptive norm
- Infrastructure barriers
- Health barriers (mobility)

Resources

- Financial constraints
- Time constraints

Attitude

Perceived behavioural control
freedom of choice

Intention/Behavior Choice
Variables I – endogenous variables

- **Intention:**
  “How often do you intend to [purchase organic food / use public transport & bike for inner-city rides] in the future?”
  5-point scale: “no, never” - 5 “yes, very often”

- **Self-reported behaviour:**
  “How often have you [bought organic food / used public transport / bike for inner-city-rides] within the last 3 months?”
  5-point scale: 1 “never” - 5 “very often”
Variables II – endogenous variables

- **Attitude (2 items):**
  “[Purchasing organic food / Using public transport & bike] is a good thing to do.”
  “[Purchasing organic food / Using public transport & bike] is pleasant.”
  5-point scale: 1 “do not agree” - 5 “totally agree”

- **Perceived freedom of choice:**
  “How much freedom of choice do you have to [purchase organic food / use public transport & bike for inner-city rides]?”
  5-point scale: 1 “very little” - 5 “very much”
Variables III – exogenous variables

- **Descriptive Norm:**
  “Most people who are important to me [purchase organic food / use public transport & bike for inner-city rides].”
  5-point scale: 1 “do not agree” - 5 “totally agree”

- **Resource constraints (2 items):**
  [Purchasing organic food / Using public transport & bike]
  … is financially demanding.
  …is costly in terms of time.”
  5-point scale: 1 “do not agree” - 5 “totally agree”
Variables IV – exogenous variables

• Infrastructure barriers (social conversion factors):
  “Purchasing organic food is difficult for me because of the lack of shops that offer such products.”
  “Using public transport & bike for inner-city rides is difficult for me because of an insufficient public transport infrastructure.”
  5-point scale: 1 “do not agree” - 5 “totally agree”

• Health barriers (personal conversion factors):
  “Using public transport & bike for inner-city rides is difficult for me because of my health.”
  5-point scale: 1 “do not agree” - 5 “totally agree”
Empirical Results: Frequency of self-reported behavior

- Organic food
- Mobility

Categories: never, seldom, sometimes, often, always
Empirical results: Perceived freedom of choice – frequencies

- Perceived freedom of choice:
  - organic food
  - mobility

- Frequencies for size:
  - very small
  - small
  - medium size
  - large
  - very large

- Frequency distribution shown in the bar chart.
Empirical Results – Discrepancy Analysis between Attitudes and Freedom of Choice

score discrepancy analysis
(gap of two score points or more)

• attitudes >> perceived freedom of choice
  – 29.2 % in mobility sample
  – 20.9 % in food sample

• perceived freedom of choice >> attitudes
  – 5 % in mobility sample
  – 5.6 % in food sample
### Regression analysis I – Purchase of organic food

<table>
<thead>
<tr>
<th>Independent V.</th>
<th>Dependent V.</th>
<th>Purchase of organic food</th>
<th>Perceived freedom of choice to purchase organic food</th>
<th>(Perceived) Norm to purchase organic food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (0= male, 1= female)</td>
<td></td>
<td>.22***</td>
<td>.09*</td>
<td>n.s.</td>
</tr>
<tr>
<td>Household income (log)</td>
<td></td>
<td>.13**</td>
<td>.15**</td>
<td>n.s.</td>
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<tr>
<td>Education</td>
<td></td>
<td>.15**</td>
<td>.14**</td>
<td>n.s.</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>n.s.</td>
<td>n.s.</td>
<td>.14**</td>
</tr>
<tr>
<td>Household size</td>
<td></td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Interest in politics (0= no, 1= yes)</td>
<td></td>
<td>.17**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; *** p < .001
### Regression analysis II – Mobility behaviour

<table>
<thead>
<tr>
<th>Independent V.</th>
<th>Dependent V.</th>
<th>Use of public transport &amp; bike</th>
<th>Perceived freedom of choice to use public transport &amp; bike</th>
<th>(Perceived) Norm to use public transport &amp; bike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (0= male, 1= female)</td>
<td></td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Household income (log)</td>
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<td>Education</td>
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Regression analysis III – synopsis behavior, freedom of choice and norms

- **Stronger correlation of socio-economic factors with food purchase than with mobility behaviour**
- **Central variables: household income and education**
- **Purchase of organic food: effect of income on purchase behaviour only significant when education was low (but not when educ. was high)**
- **No effects of perceived norms (perceived environmentalism of important others does not differ across social groups)**
Regression Analysis IV – Purchase of Organic Food: Barriers and Constraints

<table>
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<tr>
<th>Independent. V.</th>
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<th>Infrastructure barriers</th>
<th>Financial constraints</th>
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<td>n.s.</td>
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<td>n.s.</td>
<td>.09*</td>
</tr>
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Regression Analysis V – Mobility: Barriers and Constraints

<table>
<thead>
<tr>
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<th>Dependent V.</th>
<th>Infrastructure barriers</th>
<th>Time constraints</th>
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Equality and Sustainable Consumption in Capability Perspective – Conclusion
Equality and Sustainable Consumption in Capability Perspective

Thank you!

- For more information:
- http://www.soeb.de
  - Berichterstattung zur sozioökonomischen Entwicklung in Deutschland reporting on socio-economic development in Germany
- http://ipa.hsu-hh.de/lessmann
Path model I – Purchase of organic food

Descriptive norm
Infrastructure barriers
Financial constraints

Attitude
Perceived freedom of choice
Intention

R² = 0.25
R² = 0.14
R² = 0.52

0.50
0.24
-0.21
-0.15
0.48
0.11
0.31

Torsten Masson & Ortrud Leßmann
Path model II – Mobility behaviour

Descriptive norm
Infrastructure barriers
Time constraints

Attitude
R² = 0.14

Perceived freedom of choice
R² = 0.24

Intention
R² = 0.39