Cultural differences on the role of norms on environmental behaviors

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Outline

1. The difference in the role of subjective norm in Western and Asian cultures
2. How do we acquire these cultural differences
3. Interaction of descriptive norm and collectivism
1 Role of subjective norms on environmental behavior

- Subjective norm (Theory of reasoned action; Fishbein & Ajzen (1975), TPB; Ajzen (1991))
  - Expectation from significant others and willingness to comply with it.
  - Attitudes: internal value
  - Subjective norm: external pressure
Cultural differences

• Markus & Kitayama (1991) Important values differ among cultures
  – Western countries (e.g. Europe and North America): independence and individual values.
  – Asian countries: interdependence, relationship with others

• ->Subjective norm would play more important role in Asian countries than in Western countries
Determinants of Environmental behaviors in Germany and Japan

(Ando, Ohnuma, Blöbaum, Matthies & Sugiura, 2010)

• The study compared the determinants of environmental behavior between German and Japanese citizens

• Individual and collective environmental behavior

• Respondents
  – Random sampling in Cologne (Germany) and Nagoya (Japan)
  – Germany: 996 valid answers.
  – Japan: 531 valid answers
## Result of hierarchical regression analysis (reducing behavior)

<table>
<thead>
<tr>
<th></th>
<th>STEP 1</th>
<th>STEP 2</th>
<th>STEP 3</th>
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<td>$F$</td>
<td>57.42 ***</td>
<td>85.48 ***</td>
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Subjective norm had positive effects in both countries

Stronger effect in Japan
Subjective norm have stronger impacts in Japan.

– In Japan, people are more sensitive to the norms of close others.
– However the impact is not always strong.
– Environmental behaviors that is observable from others are more likely to be affected.
2 Next question
- Developmental change

• How do we acquire our environmental attitudes and behaviors?
• How do we adopt to cultural norms?
Transmitting environmental behaviors to next generation

(Ando, Yorifuji, Ohnuma, Matthies & Kanbara, 2015)

• Investigate the parental influence on children’s environmental behavior

• Social learning theory (Bandura, 1977): Children primarily learn from observation.
  – -> Parents’ behavior affect children’s environmental behavior

• Respondents:
  – Elementary school children of 9-10 years old and one of their parents in Germany and Japan.
  – Germany: 221 pairs, Japan: 365 pairs
Fig. 1 The result of multi-group model between Germany and Japan for children

Model fit: $CMIN = 154.12$, $df = 66$, $GFI = .953$, $RMSEA = .048$
Fig. 2 Determinants of parents’ behavior in Germany and Japan

Model fit: $CMIN = 30.43$, $df = 10$, $GFI = .982$, $RMSEA = .059$

Personal norm

Subjective norm/family

Perceived behavioral control

Recycling behavior

G : Germany

J : Japan

G .82***
J .53***
G .26*
J .20

G -.09
J .14*

G .42***
J .50***

G -.09
J -.26***

G : $R^2 = .65$
J : $R^2 = .64$
Discussion (2)

- At early age, observation of parents’ behavior affect children’s environmental behavior.

- Subjective norm is more important for children regardless of culture.
  - Children are more eager to follow parents’ expectations

- As children grow older, subjective norms are internalized in Germany. In Japan, it still works as an external pressure.
3 Influence of descriptive norm

- Subjective norm: norm of close others
- Descriptive norm:
  - Perception that many others are conducting the behavior (Cialdini et al. 1991)
  - norm from anonymous others, group norm
- Previous studies found that descriptive norms have impacts on environmental behaviors (e.g. Schultz et al., 2008)
Cultural differences

- Hinkle & Brown (1990) suggested social identity theory should be more applicable to collectivistic groups.
- Individuals with high collectivism would be more sensitive to group norms.
- Descriptive norm will work stronger for individuals with high collectivism.
Survey in the U.S., Germany, Japan and China

Ando, Ohnuma, Hübner, Schultz and Li, 2015

- Examine the effect of descriptive norm on environmental behavior in four countries.
- Respondents: University students
  - Valid answers: U.S.: 87, Germany: 296, Japan: 661, China: 184
Mean scores

Reduction Behavior

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<th>Country</th>
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<td>Germany</td>
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<tr>
<td>Japan</td>
<td>2.37</td>
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<td>China</td>
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Collectivism

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<td>Japan</td>
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Result of regression analysis (reducing behavior)

<table>
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<tr>
<th></th>
<th>U.S. (N=87)</th>
<th>Germany (N=296)</th>
<th>Japan (N=611)</th>
<th>China (N=184)</th>
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<td>.055</td>
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</table>

- \( R^2 \) values:
  - U.S.: .49
  - Germany: .43
  - Japan: .29
  - China: .39

- \( F \) values:
  - U.S.: 6.69 ***
  - Germany: 18.06 ***
  - Japan: 24.04 ***
  - China: 10.59 ***

* \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)
Discussion (3)

• Collectivism itself did not have main effect.
• Descriptive norm was more powerful for collectivistic individuals.
  – But it was only in Japan and China
• Collectivistic individuals + group norm salient -> environmental behavior
Thank you very much for your attention!
References(1)


References (2)


