Transitions governance and heterogeneous public opinion: the case of Finnish low carbon transport

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Overview

- Study framing: transitions governance of innovation processes, drawing on STS & a social capital approach to public engagement

- Discussion of theoretical & practical issues associated with public ‘engagement’ in transitions

- Illustrated by a survey of Finnish public opinion of low carbon transport innovation policy
Context

● Tekes funded project with the Finnish Environment Institute and Aalto University in Helsinki, 2012-14

● *Future innovation and technology policy for sustainable system-level transitions: the case of transport (FIP-Trans)*
Transition management

- Socially participative ‘problem structuring, long-term goals and learning about system innovation’ (Kemp et al, 2007).

- System change viewed as arising through the interaction of three types of governance activities - strategic, tactical and operational plus reflexivity.

- However the literature has said relatively little about the role of public engagement in governing transitions and even less about engaging publics with differentiated opinion.
Increased public engagement may support or hinder each transition stage.

PUBLIC OPINION INFLUENCES TRANSITION DRIVERS AND DYNAMICS
* Cultural and structural tensions
* Internal inconsistency (stress)
* Intra or extra-regime pressures

Why: empower, consult, appease or manage?
Who: national population or selected groups?
How: polls, focus groups, citizens’ panels?
When: R&D or deployment stage?
What: bespoke or generic formats?
Methods

- Online survey instrument
- Administered by TNS-Gallup to 1,000 people in three contrasting travel to work areas: Helsinki, Tampere and Oulu
- Several questions were drawn from relevant UK national surveys (Natcen, 2011; Yougov (2013))
- Focus on Finnish transport innovation options, with variants specific to the Finnish climate
- Vehicle technology selection informed by sources including PE International’s report for the UK Low Carbon Vehicle Partnership (LCVP)
Age – census vs sample

- 15-24: Census: 15.00%, Sample: 2.50%
- 25-34: Census: 12.50%, Sample: 10.00%
- 35-44: Census: 15.00%, Sample: 17.50%
- 45-54: Census: 15.00%, Sample: 20.00%
- 55-64: Census: 10.00%, Sample: 22.50%
- 65-74: Census: 10.00%, Sample: 17.50%
- 75+: Census: 5.00%, Sample: 2.50%
How often do you use a car?

- Every day or nearly every day: 40
- 2-5 days a week: 25
- Once a week: 5
- 1-3 times a month: 10
- Less than once a month: 10
- Never: 10
How often do you use public transport?
Blue: winter; Red: other time of year

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<th>Frequency</th>
<th>Winter</th>
<th>Other Time of Year</th>
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<td>Every day or nearly every day</td>
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The next question is related to climate change. Please choose from following options...

- The world's climate is changing due to human activity during this century
- The world's climate is changing, but human activity has no effect on it during this century
- The world's climate is not changing during this century
- I don't know
How much do you agree with the following statement?
‘Current level of car use has a serious effect on climate change’
Thinking about the options listed in question 8, which do you think would make most difference (positive) to your own life? Please indicate the five options that you think would make most difference.
<K11_1> Finland should prioritise biofuel research above other transport technology options, such as electric vehicles  Percent

<K11_2> I trust forests are used sustainably for biofuel production in Finland Percent

<K11_3> More of national timber should be used to produce biofuels in Finland Percent

<K11_4> Timber from other countries should be imported to Finland to produce biofuels Percent

<K11_5> Mainly just forest wastes (bark and trimmings) should be used to produce biofuels in Finland Percent
- **<K12_1>** Electric vehicles are the best way to reduce emissions Percent
- **<K12_2>** The significant use of electric vehicles will increase the price of electricity Percent
- **<K12_3>** Electric vehicles will not solve the basic problems of passenger vehicle based traffic, the increase in travel and in congestion Percent
- **<K12_4>** The use of electric vehicles should be promoted more by public funding Percent
Driverless vehicles (For each options below, please choose the best answer. Which technologies should be supported by public funding and at which stage?)
## Significant group and population differences (p=0.05 or 0.01)

### Geography

- Higher car use and lower public transport use in the Oulu region
- Stronger environmental concern in the Helsinki region

### Perception of Climate Change
- Median for all three regions is similar
- But Oulu and Tampere have similar and higher upper quartiles of respondents who believe that ‘the world’s climate is changing, but that human activity has no effect on it during this century’.

### Bio-economy for Transport
- On the development of the bio-economy for transport, there were significant regional differences for all but 1 of 5 questions.
- Helsinki respondents are more sceptical of the sustainability of current forest utilisation
- Oulu is more supportive of using more of the national timber stock for biofuel
### Significant group and population differences (p=0.05 or 0.01)

#### Gender

- Significantly more men than women say that they own a car
- Men make disproportionate use of car travel

- But gender distributions of having a permanent right to use a car do not differ

- Men are more climate-sceptic

- Fewer men agree strongly that car use has a serious effect on climate change or that traffic congestion in towns and cities is a very serious problem

- Women are significantly more likely to register don’t know re prioritising biofuel research and to related questions on the use of timber for biofuel production
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<td>There are significant income-based differences for:</td>
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<td>• ‘I own a car’</td>
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<td>• ‘my family has a car’</td>
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<td>• ‘I have permanent right to use of a car’</td>
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<td>• In all cases the differences are particularly between the highest and lowest income groups</td>
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<td>• Median car usage increases with income, more so for non-winter.</td>
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<td>• People in lower income brackets are more frequent users of public transport</td>
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<td>• Younger people, also in the lower income brackets, agree more strongly with the current level of car use having a serious effect on climate change and re traffic congestion</td>
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Significant group and population differences ($p=0.05$ or $0.01$)

**Age**

- The youngest and oldest groups cycle most
- The youngest group (15-24) walks the most
- The youngest group (15-24) are most averse to prioritise biofuel research above other transport policy & technology options
Issues and implications for engagement and policy

- Representativeness: some groups are hard to reach (e.g. youth and particularly male youth)

- Geography matters & the reasons may not be obvious

- Environmental concern appears related to transport practices, age and gender

- Transport practices are likely to partly reflect availability of public transport infrastructure (i.e. direction of causality again not obvious)

- All group differences have implications for policy legitimacy and acceptance
Implications for transition management

● Heterogeneity of public opinion may or may not compound the difficulties faced by actors seeking to establish new technologies or practices.

● Heterogeneity complicates the generation of shared expectations, visions and policy legitimation.

● Public opinion can appear conservative (driverless vehicles, biofuels), favouring established niches.

● Typically prefers supportive rather than punitive measures (opposes taxes).
More generally

- Whereas transition management embodies a participatory model of democracy, the norm is representative democracy.

- Outside of this, citizens take political action in various ways and organised interests lobby: European Parliament Transparency register of lobbyists lists 6,500 registered organisations.

- Transition management is prescriptive and normative as well as analytical and any theory of public engagement needs to acknowledge the very long history of political thought.
Summary

- We have situated aspects of public engagement - particularly the requirements of different participation rationales - in relation to transition management concepts.

- We have illustrated some of the associated issues with the results of a Finnish public opinion survey on innovation policy for low carbon transport.

- As such we have mapped some of the territory, rather than yet offering a close connection of engagement theory with transition management.
Thank you!

Contacts / Ota yhteyttä!

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