The Québec convergence and Canadian life satisfaction 1985–2008

Overview

What happened in Québec?
- A rise in relative SWL is reproducible and coherent ✓
- The rise has left Québec at the top of the world in subjective life evaluation ✓
- Difference and change are large ✓
- Was it income? ×
- Was it the income distribution? ×

Modelling changes over time
- Suggestive but inconclusive

Plan

Data: “life satisfaction” in Canadian GSS
- The global context

Quantifying the “Québec convergence”
- Testing some natural theories [Barrington-Leigh, CPP 2013]

Decomposing changes across Canada
- Conclusions
Quantifying life quality

**Question: Satisfaction with life (SWL)**

“Taking all things into account, how satisfied are you with your life these days, on a scale from 0 to 10?”

0: very dissatisfied
...
10: very satisfied

**Question: Cantril’s ladder**

“Please imagine a ladder with steps numbered zero at the bottom to ten at the top. Suppose we say that the top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible. If the top step is 10 and the bottom step is 0, on which step of the ladder do you feel you personally stand at the present time?”

→ not: “How are you feeling at the moment?”

→ not: “What makes for a satisfying life?”

Subjective well-being: Cantril’s ladder

Subjective well-being: affect balance

Cantril’s ladder (2007–2011)

<table>
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<tr>
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<tbody>
<tr>
<td>Denmark</td>
<td>7.84</td>
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<tr>
<td><strong>Québec</strong></td>
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<td>Costa Rica</td>
<td>7.25</td>
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<tr>
<td>United States of America</td>
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Data: Gallup World Poll
How to compare cross-sections over time?

Literature often focuses on lack of large or sustained change in SWB (e.g. Clark et al [2008], Deaton [2011], Easterlin et al [2010], Stevenson and Wolfers [2008], ...)

Hill [2004] compares national mean SWB over time in Canada by choosing numerical equivalents for the different scales.

→ My approach: to compare provinces, normalise within each survey.
Normalised Life satisfaction (Québec)

Normalised Life satisfaction (outside Québec)

Hypotheses: why does Québec “converge”?

- Translation issue — the question has changed more in French than English.
- Culture — Québécois have become more like the rest of Canadians in their optimism/pessimism.
- Income — Québec has had more income growth than the rest of Canada. Jobs are better. The poor suffer less.
- Changing social context — Echoes of the Quiet Revolution, replacement of the Church by state structures, have affected “non-economic” aspects of life.
- Provincial-level public goods (possibly involved in above) are working better in Québec.

Have incomes gone up more in Québec?
Pooled model

- Normalised (by year) SWL
  \[ z^{SWL}_{yi} = \alpha_y d^c_{yi} + \delta_y d^Q_{yi} + \theta \log(Y_i) + \beta X_i + \varepsilon_i \]
- Year dummies
- Québec dummies
- Individual characteristics (excluded for means)
- Compensating differentials are then \( \delta_y / \theta \)

Estimates of “living in Québec” (\( \delta_y \)) for various \( X \)


- residuals
- income and demographics
- with health
- with health, religion, and language
- with labour status
Estimates of income equivalents ($\delta y/\theta$)

Have prices stayed lower in Québec? Are the poor faring better (relatively) in Québec?

What about evolving price differences?

\[ Z_i^{SWL} = \gamma P + \alpha y d_y + \delta y d_Q + \theta \log \left( \frac{Y_i}{\hat{P}_i} \right) + \beta X_i + \epsilon_i \] (2)

- Province dummies (to account for 1985 price levels)
- Provincial price deflators from 1985

What about changes to the distribution?

- Rousseau [2010] fully accounted for the lack of growth in mean happiness in the U.S.A. through the concavity of individual utility combined with an increase in inequality.
  - Examine top and bottom of distribution separately
Price effects and income distribution

SWL by income quantile: Québec

SWL by income quantile: rest of Canada

Some other (unmeasured) aspect of the labour market?
Where is the tax money going? Are public goods better in Québec?

Chris Barrington-Leigh

The Québec convergence
Part II: Geographic aggregates from GSS 17 and 22

Three approaches:
- × model the difference between two regions (Blinder-Oaxaca)
- ✓ model changes to locally-aggregated SWL (time series for CTs / CSDs)
- ✓ model the change between two surveys in terms of changes in covariates (Blinder-Oaxaca)

If not income, then what?
- Scandinavianisation of policy in Québec?
- Self-determination?
- What about social trust?

Life satisfaction from two different surveys
Community belonging from two different surveys

Work stress from two different surveys

BMI class from two different surveys

Subjective health from two different surveys
Accounting for changes in SWL at the community level

- Unit of analysis is now a Census Tract or City (CSD), rather than the individual.
- Along with Δs include initial SWL and covariates:

$$\Delta \text{SWL}_g = \alpha + \beta \text{SWL}_g + \gamma X_g + \delta \Delta X_g + \varepsilon_g$$  \hspace{1cm} (3)

Two-period difference estimates of life satisfaction

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Oaxaca-Blinder decomposition for ΔSWL
Conclusions

What have I done?
- transform SWL measures taken from successive cross-sectional surveys in order to make them commensurable at the micro and macro levels
- evaluate the consistency across time of SWL aggregates
- evaluate the consistency of estimated parameters across geographic regions
- present evidence of the “Québec convergence”
- to assess evidence for possible causes of this rise.

I find:
- Large samples are needed
- Little sign of income-related shifts
- Twin challenge for SWB advocates / detractors

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