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Happiness – the functional unit of sustainable consumption

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Overview

Does eco-efficiency solve the problem?

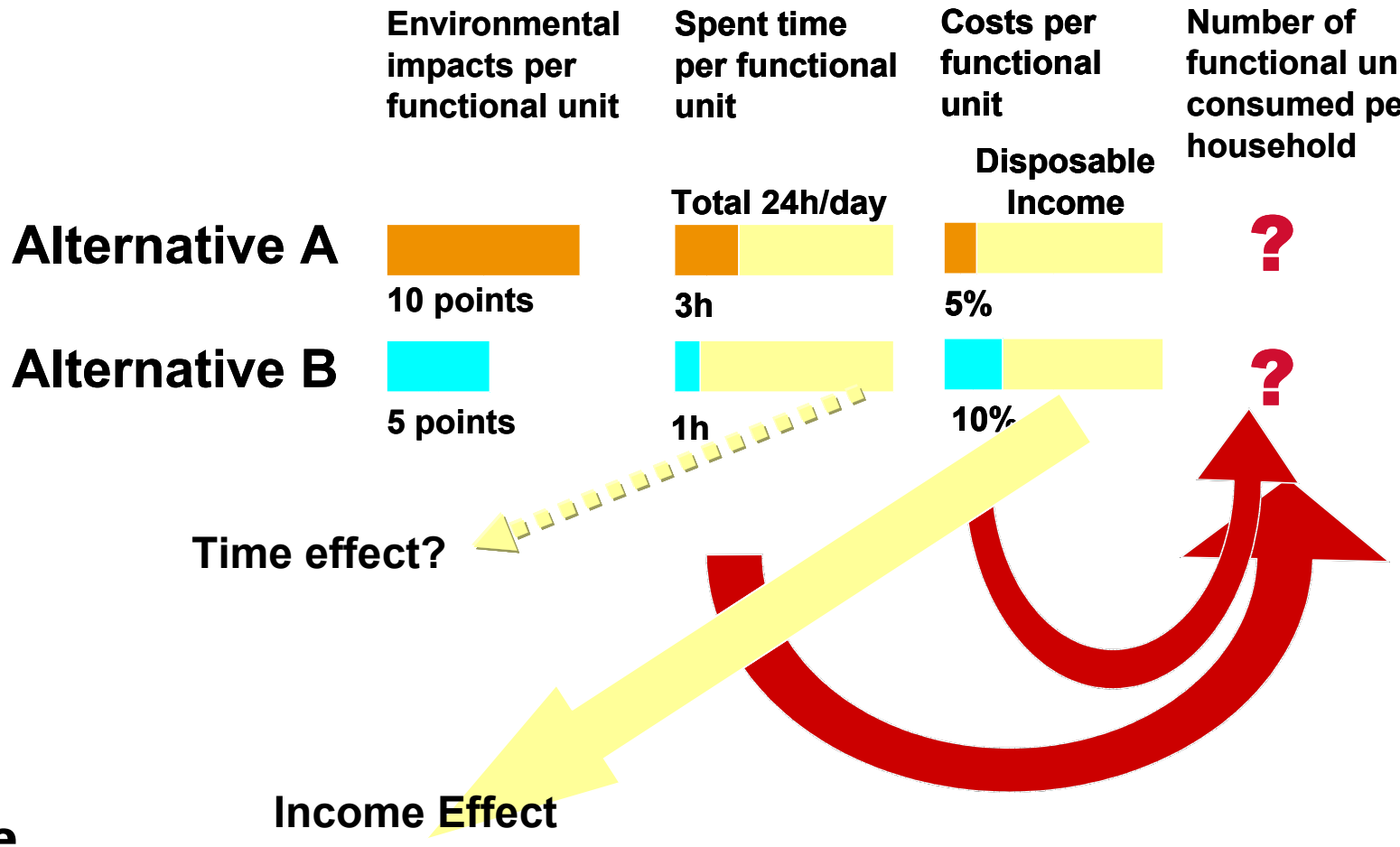
What's the ultimate utility, can we maximize it?

Is material consumption any good in maximizing happiness?

Proposal for an assessment method for sustainable consumption.

Conclusions

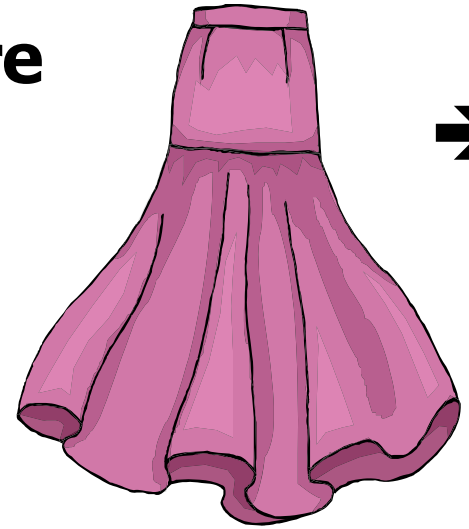
Issues related to Eco-efficiency



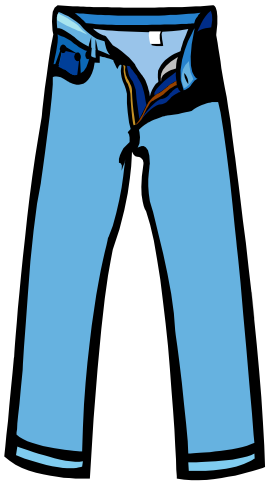
Price
Time use
Space use
Required skill level
Need for information
Other direct resource use

Marketing is sector specific

More



➔ **less**



But perhaps also more

Usually not considered in
marketing research and planning

Review of Studies on Direct Rebound Effects due to energy savings

Private Consumers	
Space heating	**10-30%**
Space cooling	**0-50%**
Water heating	**<10-40%**
Lighting	**5-12%**
Appliances	**0%**
Automative transport	**10-30%**
Firms	
Process uses (short-run)	**0-20%**
Lighting (short-run)	**0-2%**
Long-run aggregate impacts	**0-<100%**

(Greening et al. 2000)

Rebound effects (back fire, take-back, offsetting behavior):

Direct Rebound Effect (substitution effect, pure price effect): Greater efficiency may lead to a lower price of the service (or product or technology) which in turn may induce an increased use of this cheaper service.

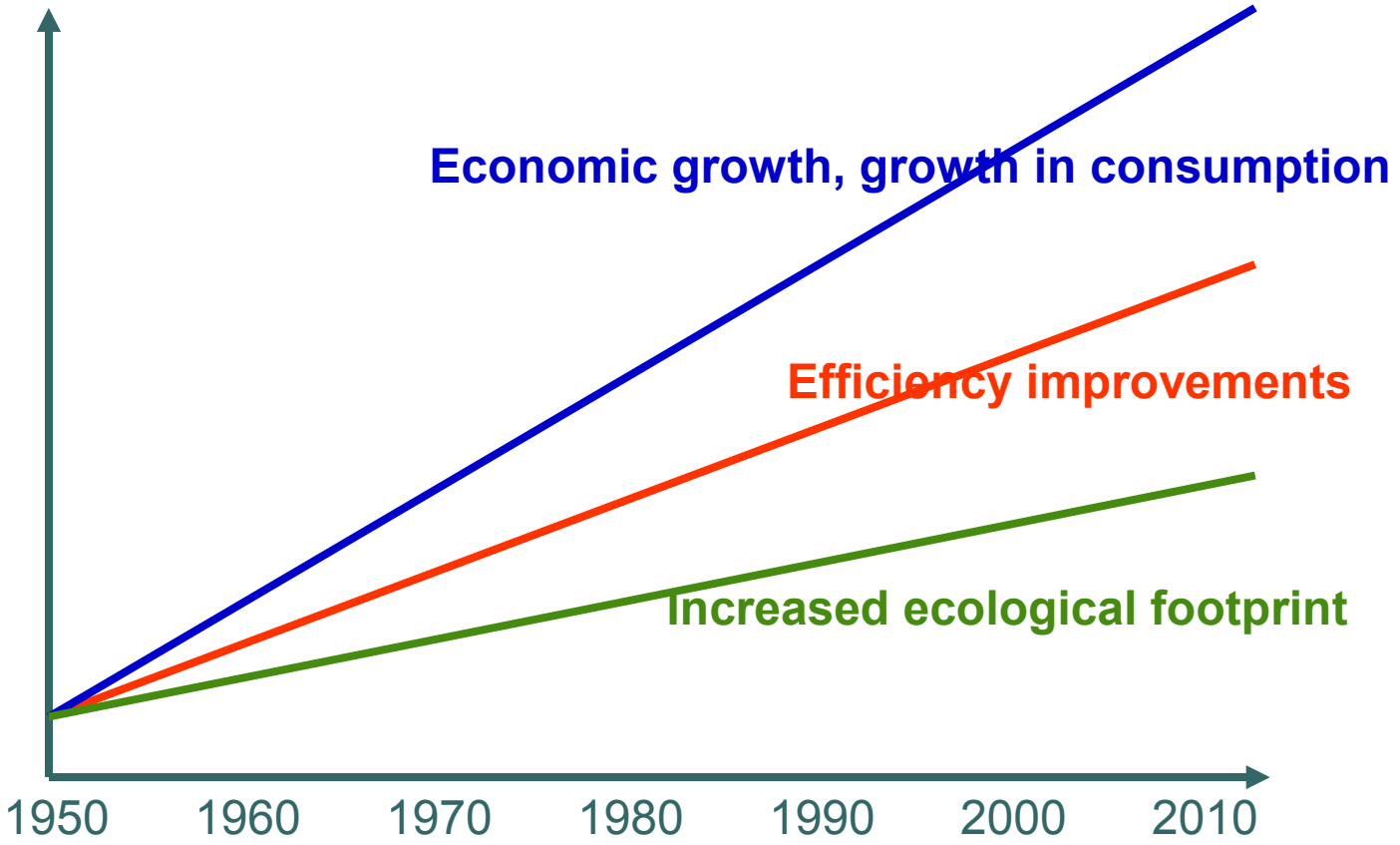
Indirect Rebound Effect (income effect, secondary effect): If prices of other commodities and income are constant, the reduction of costs for one commodity due to a particular efficiency increase implies that consumers have more money to spend on other goods.

General Equilibrium Effect (economy-wide effects): The direct and indirect rebound effect lead to changed prices and consumption throughout the economy, which may increase or decrease production in distant sectors and changes the production functions.

Transformational Effect: This includes changes in consumer preferences, alteration of social institutions, and the rearrangement of the organization of production.

(Greening et al. 2000, Binswanger 2001)

Efficiency gains are eaten up

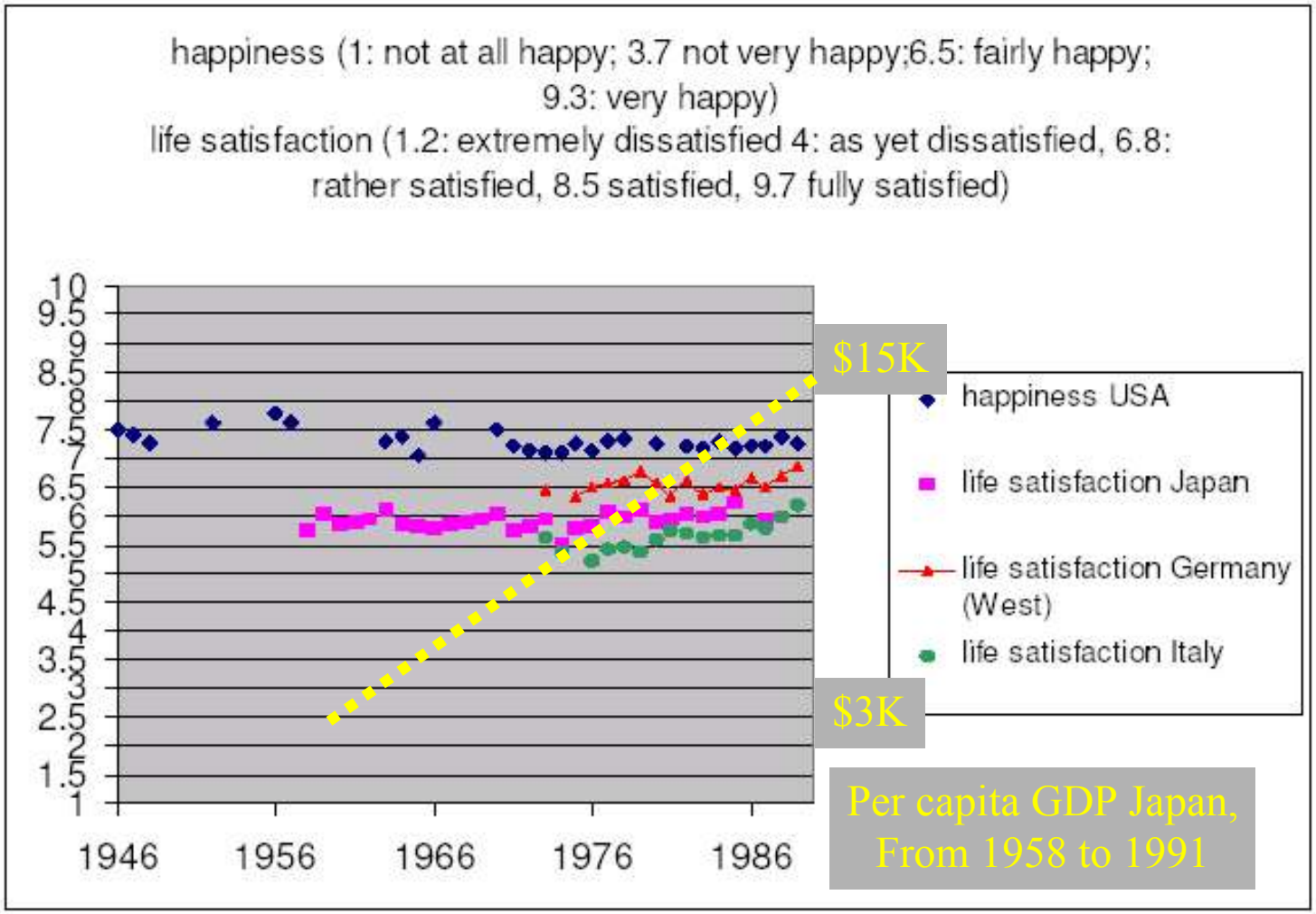


There must be other drivers!

What's the ultimate utility, can we maximize it?

"The whole economy of human society is based on one general and simple principle:
I want to be happy…."

French Encyclopedist Denis Diderot (1713-1784) cited in Elchardus (1991)



Hofstetter and Madjar 2003

Where is the well-being dividend?

Eco-efficiency is just (trying) to keep up with consumption, while *Satisfaction Efficiency of Consumption* plummets.

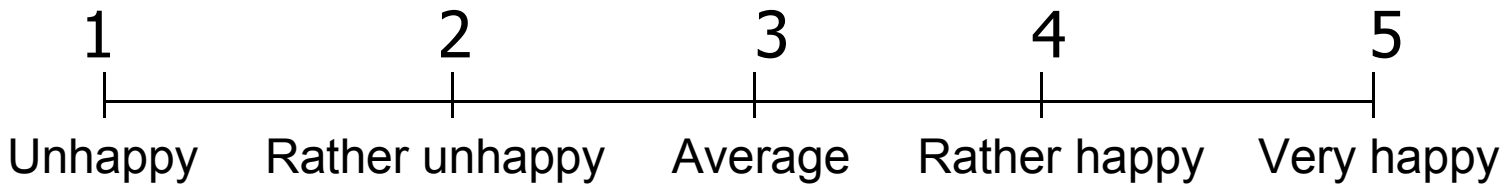
Candidates to serve as measurement of ultimate utility:

Quality of Life (QoL)
The good life
Flow state
Life satisfaction
Subjective well-being
Happiness

"**Happiness**" is among the well-studied concepts that can directly be used for our purposes.

Determination of the values for Happiness

Question: Do you consider yourself happy or unhappy?



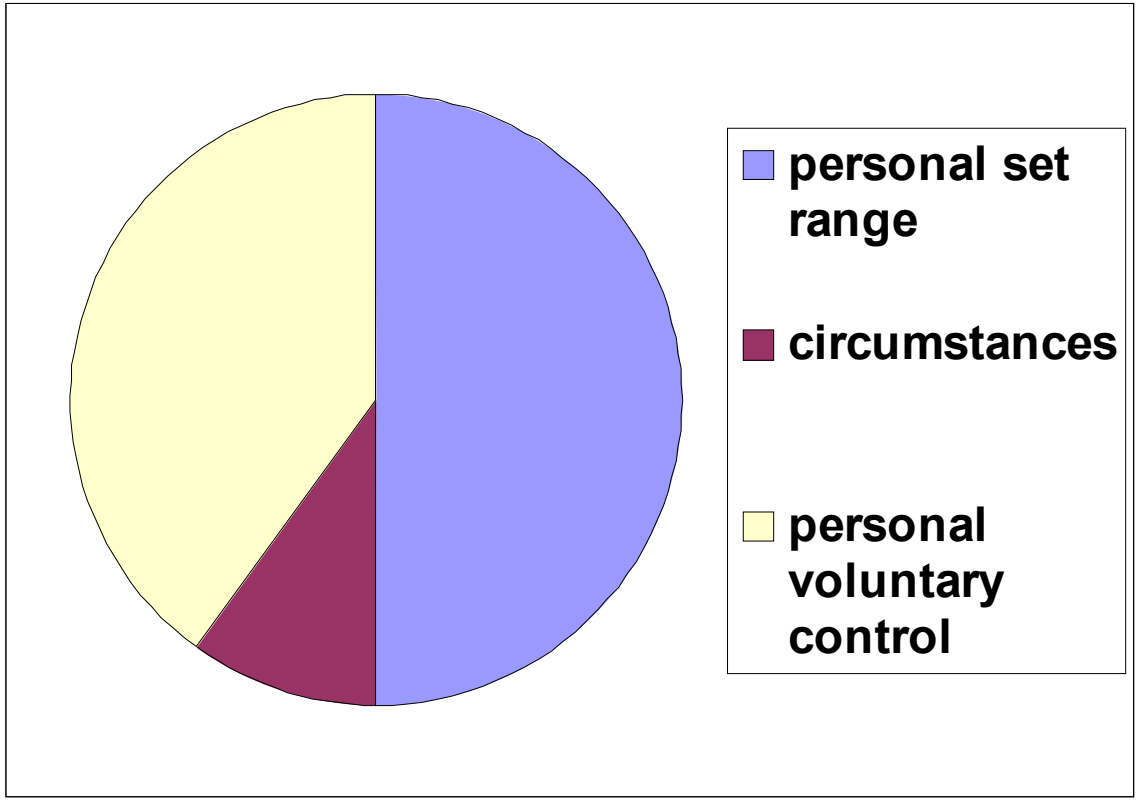
Self-reported measure

Is happiness genetically pre-determined?

Type of twin pairs	Number of pairs	Interclass correlation
Twins reared together:		
•Monozygotic	647	0.44 (+/- 0.03)
•Dizygotic	733	0.08 (+/- 0.04)
Twins reared apart:		
•Monozygotic	75	0.52 (+/- 0.10)
•Dizygotic	36	-0.2 (+/- 0.17)

Lykken and Tellegen 1996

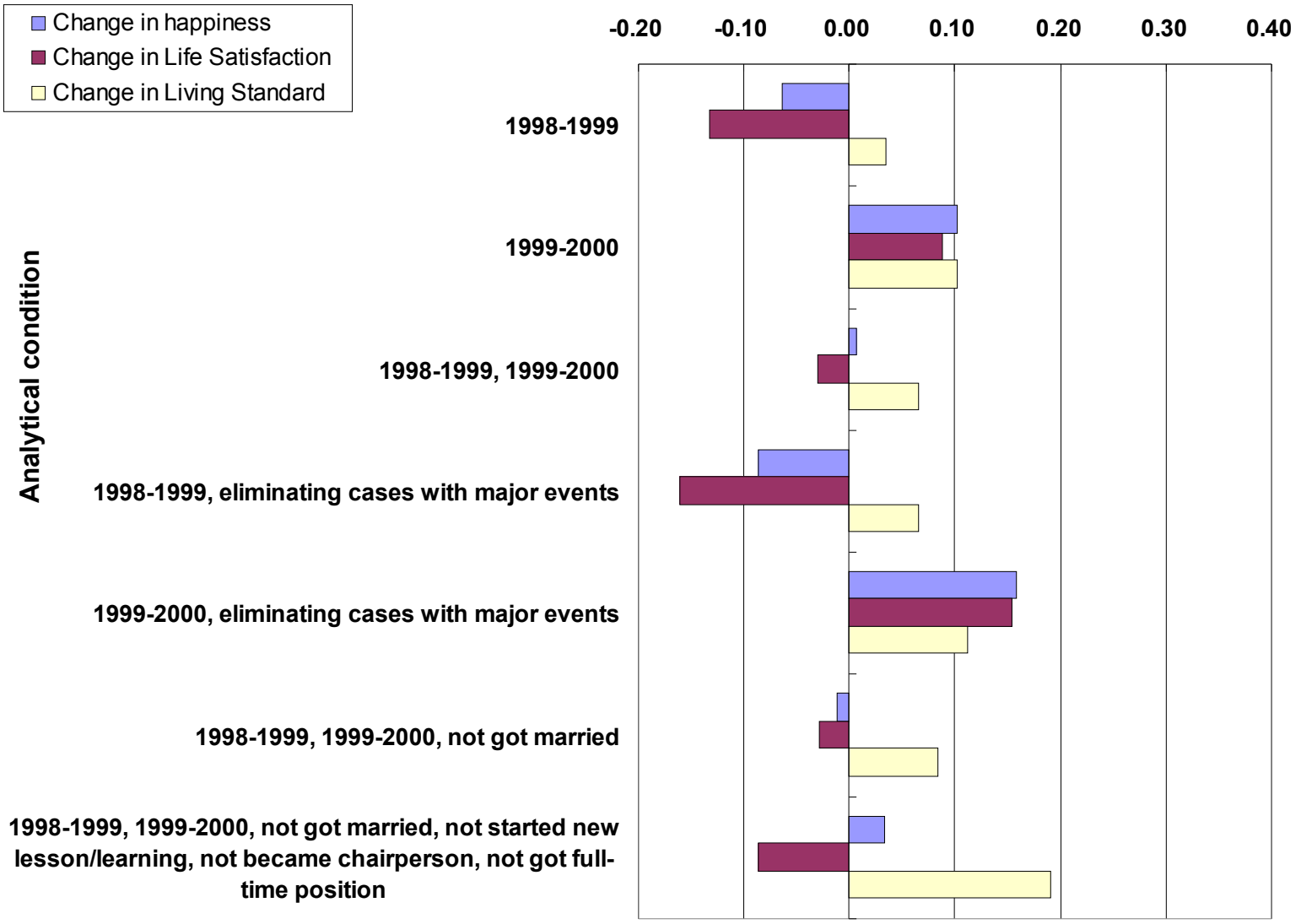
Factors that determine happiness



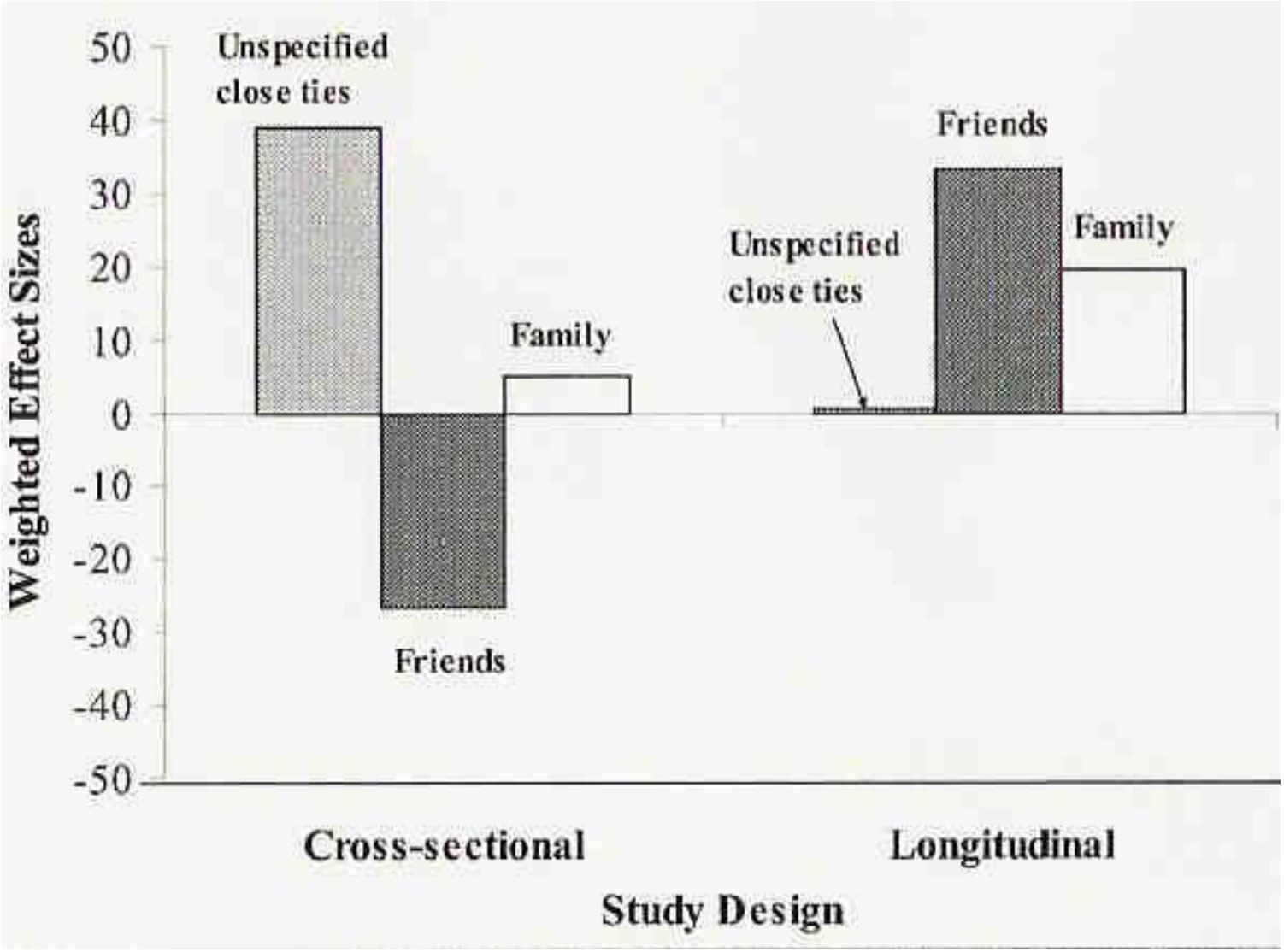
Is material consumption any good in maximizing happiness?

Adopting a mobile phone

Starting to use a Personal Computer

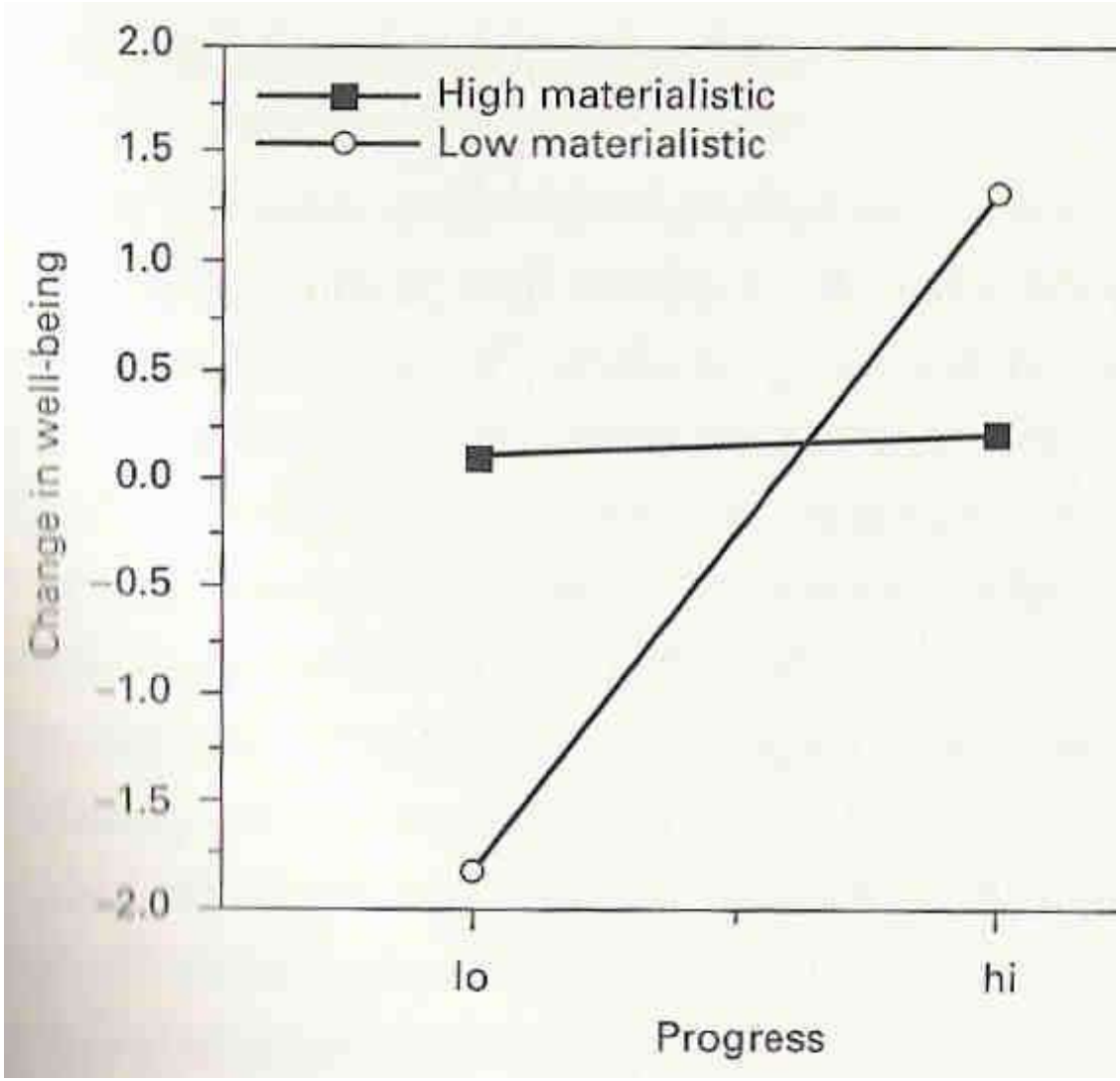


Impact of internet use on interactions



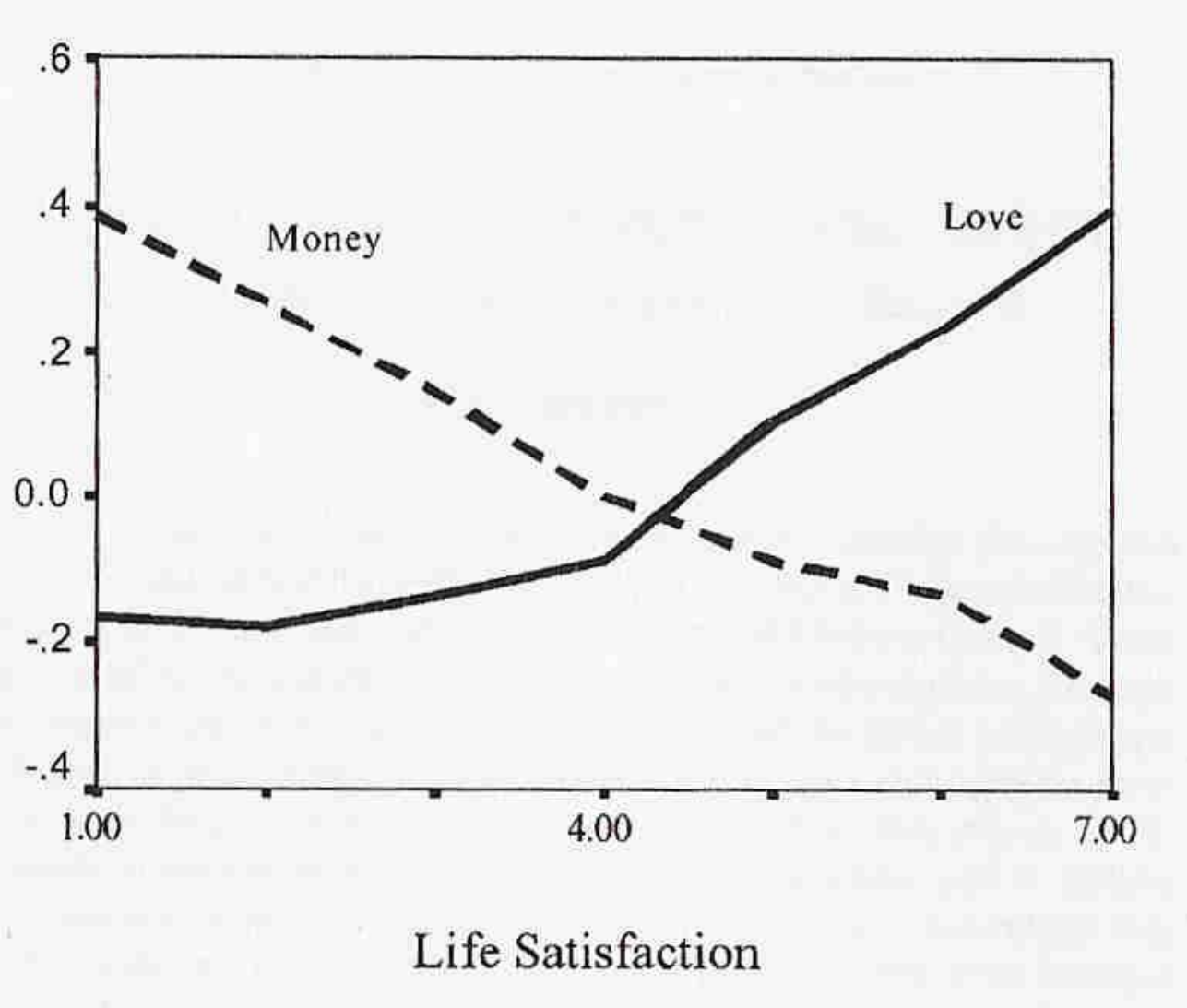
(Shlovski, Kiesler and Kraut in press)

Succeeding in materialistic goals does not make happier



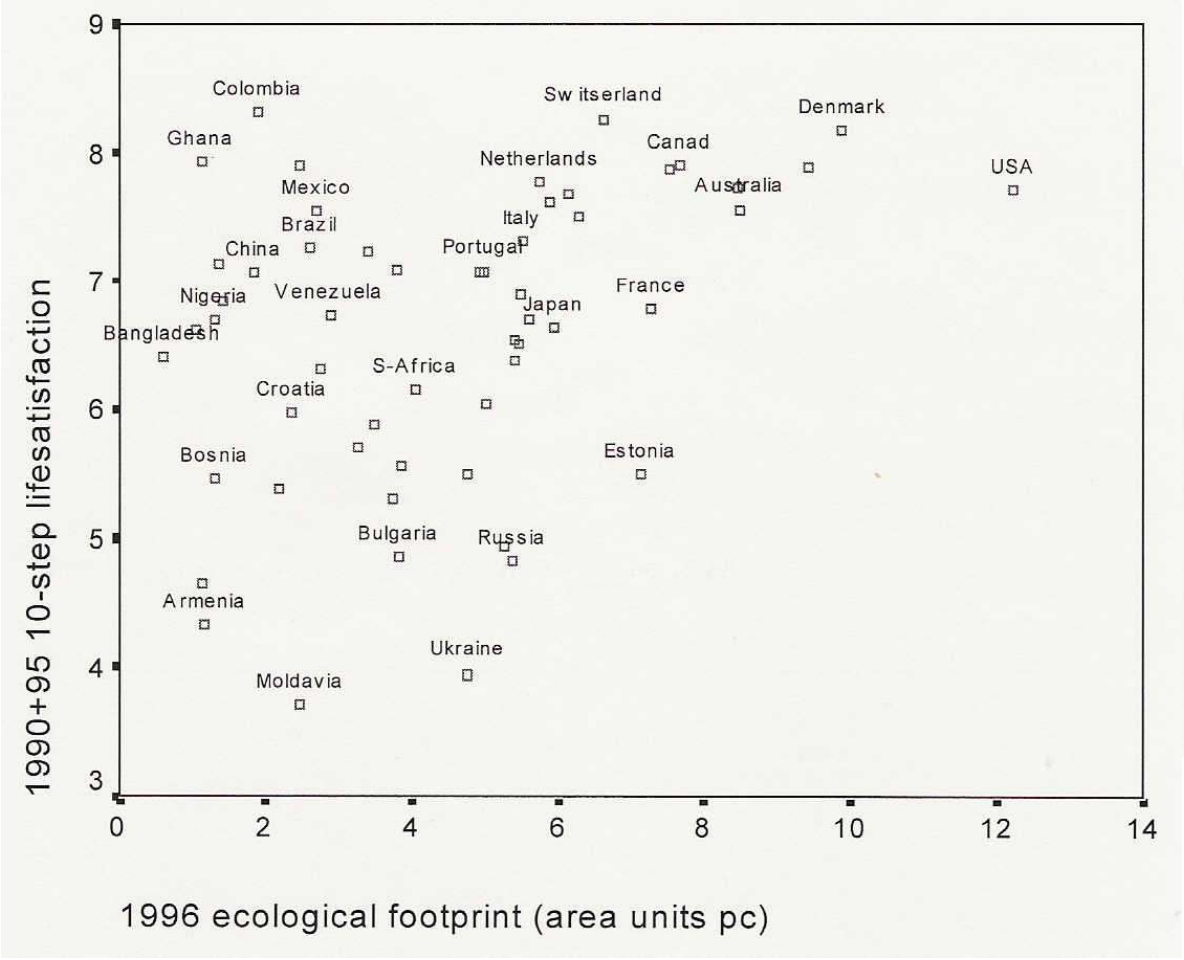
Kasser 2002

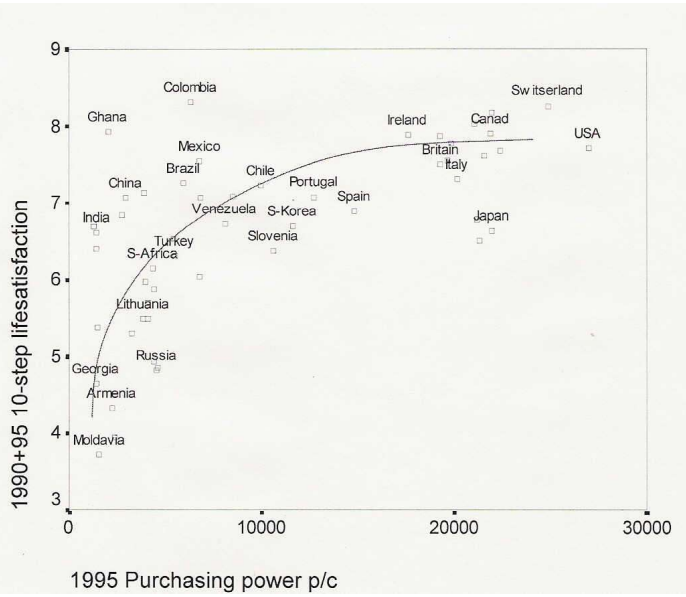
Priorities on love or money make a difference



Diener and Oishi 2000

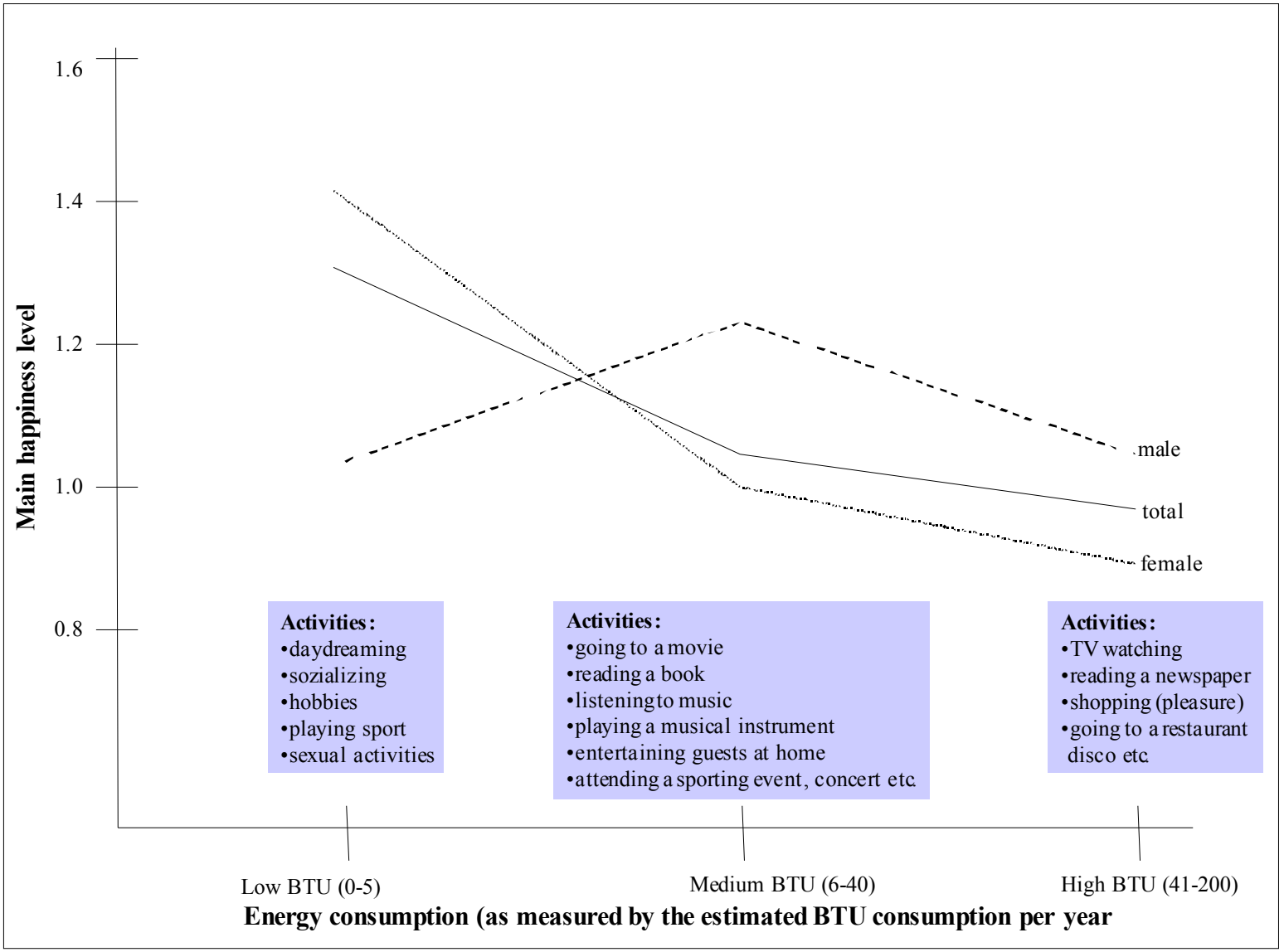
Does a high life satisfaction imply a high ecological footprint?





Footprint and life satisfaction in nations in the 1990s (Veenhoven 2004)

Are people happier during activities with high energy consumption?



(Graef et al 1981)

Recipe for getting happiness

If you want to be happy for an hour, drink a beer.

If you want to be happy for a week, kill your pig and eat it.

If you want to be happy for a year, then marry.

But if you want to be happy all your life, become a gardener.

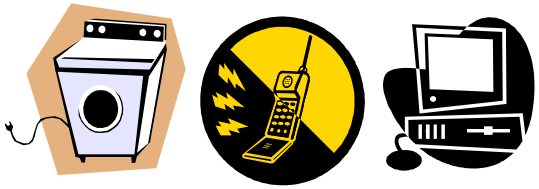
(Chinese saying)

Towards a Recipe for Happiness?

No	Fordyce (1993)	Wieseman (2003)	Montier (2004)	Material intensivity
1	Keep busy and be more active		Exercise regularly	Low (high)
2	Spend more time socializing	Maximize the lucky chances by creating a luck-network and look after it		Low -medium
10	Develop an outgoing social personality	Maximize the lucky chances by being open for new experiences		Medium
13	Close relationships are the number one source of happiness		Devote time and effort to close relationship	Low
19			Give your body the sleep it needs	Low
26			Have sex (preferably with someone you love)	Low

Assessing sustainable consumption activities

New activities/products



Module CP

Change in consumption pattern

Change in CO_2-emissions

Module C

Module H

Change in happiness/life satisfaction

Longitudinal panel data in order to derive elasticities (=quantify expected shifts in consumption patterns)

I/O-Analysis and process analysis (LCA) to assess attributional environmental impacts

Longitudinal panel data on observed changes in happiness

The proposed indicator: CHap

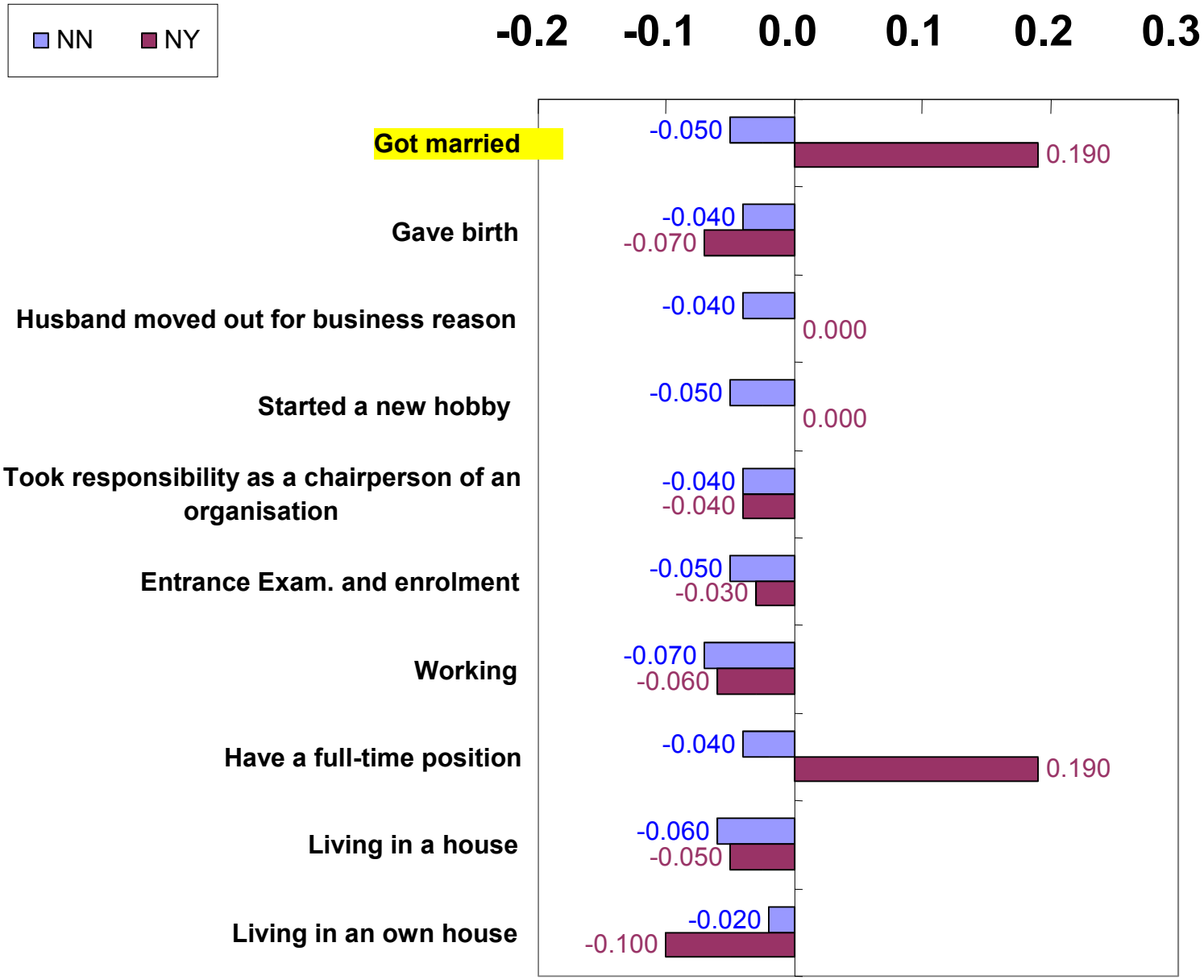
$$CHap_i = \frac{\Delta Happiness_i}{\Delta CO_{2,i}}$$

where

$\Delta Happiness_i$: increase/decrease in happiness due to consumption activity i

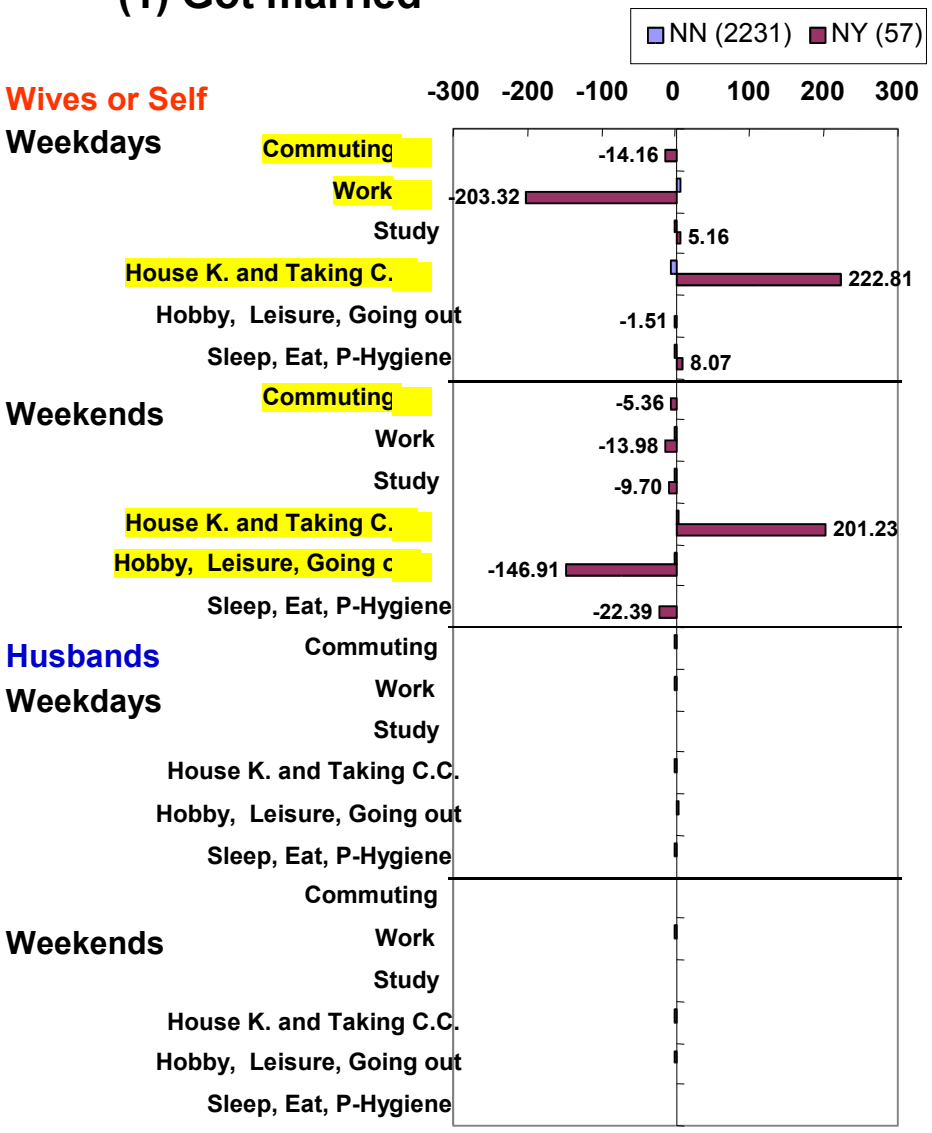
$\Delta CO_{2,i}$: increase/decrease in CO_2-emisisons due to activity i

Results: Shifts in Happiness

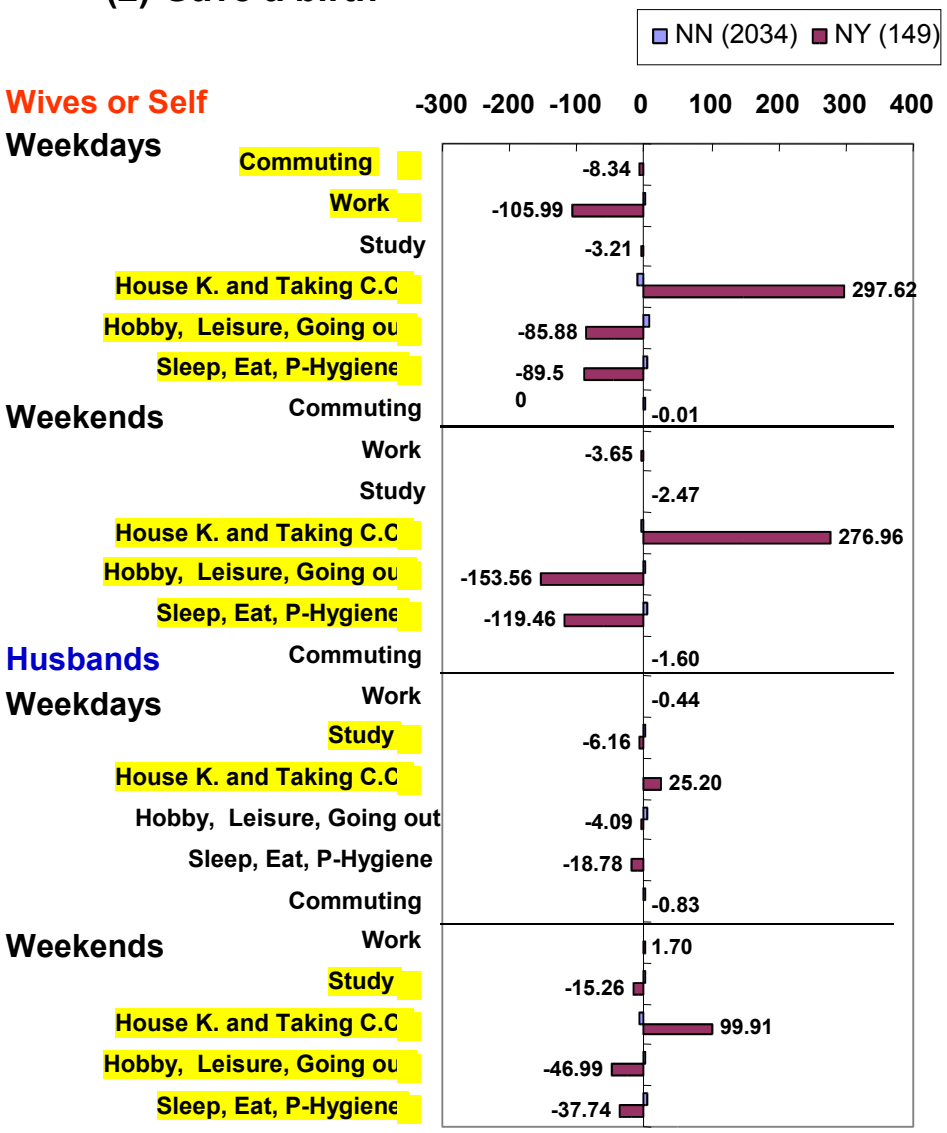


Results: Shifts in Time-Use

(1) Got married

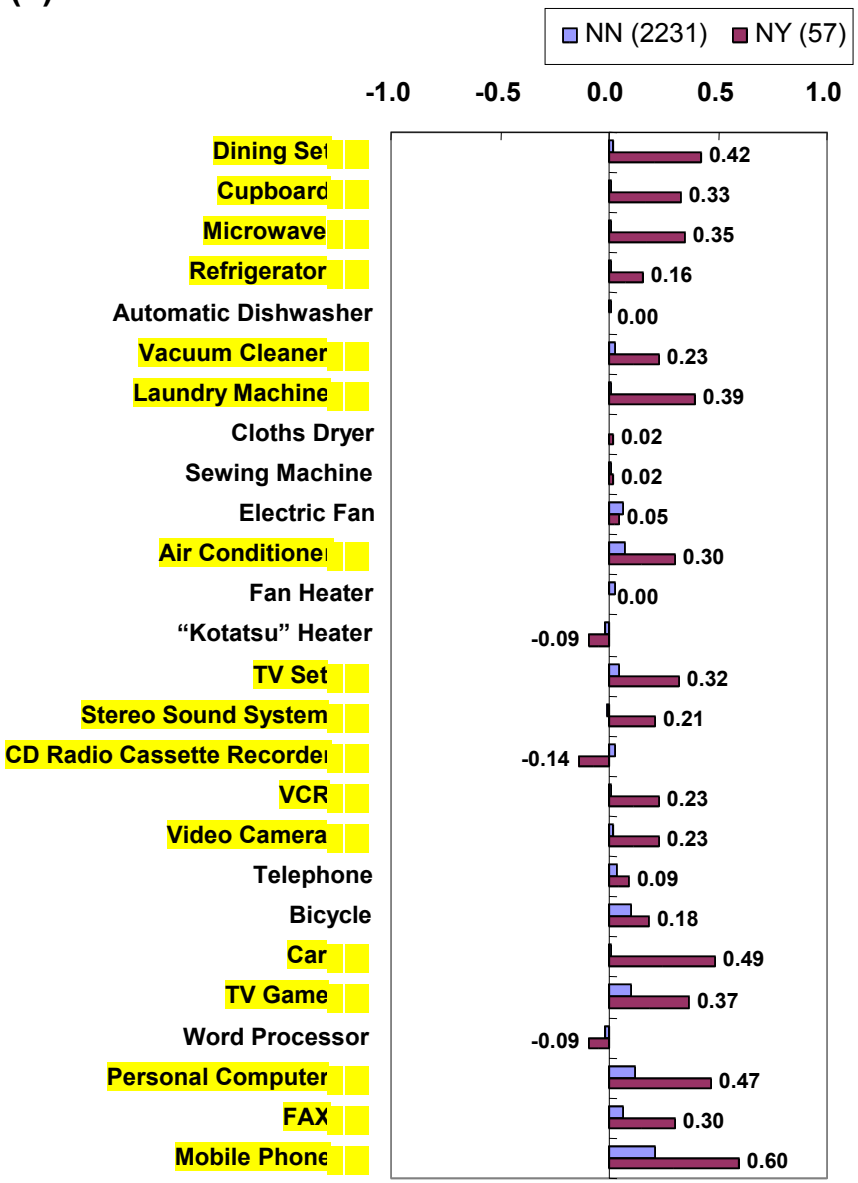


(2) Gave a birth



Shifts in Possession of Goods

(1) Got married



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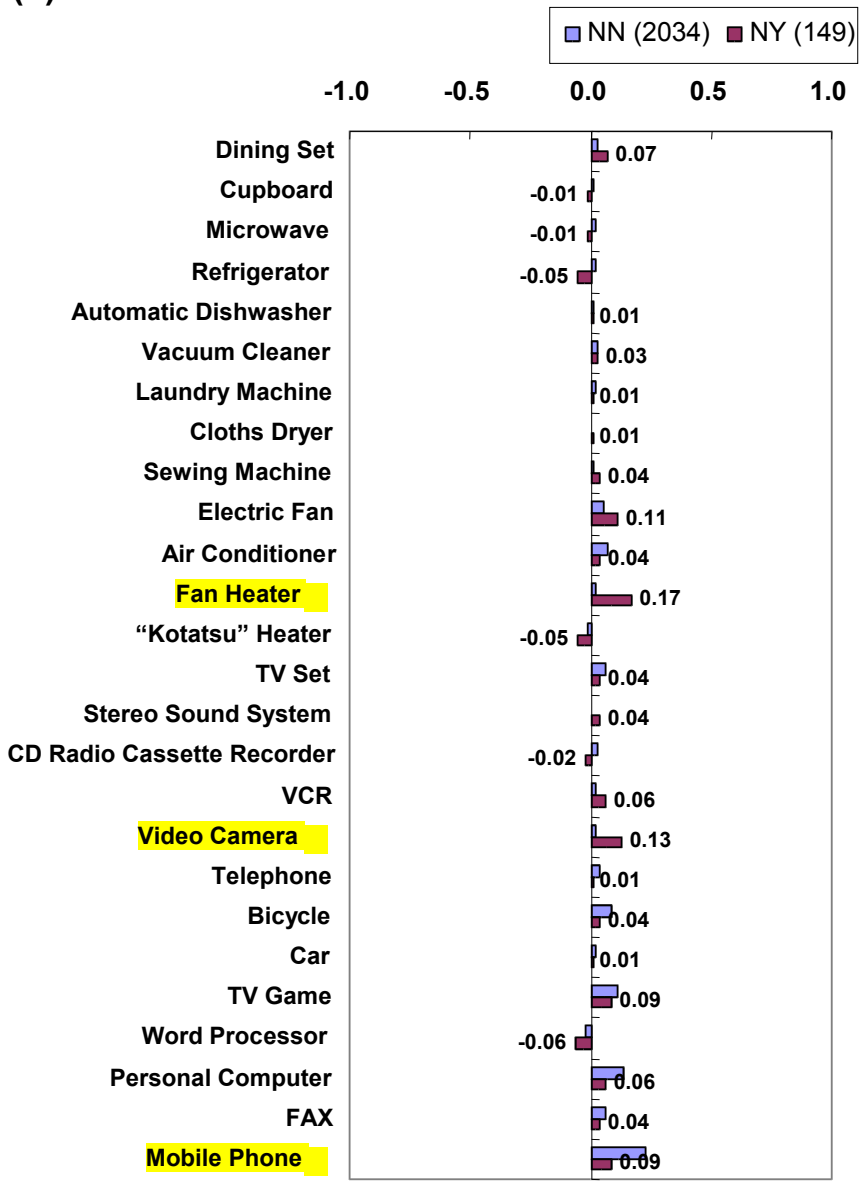

Conclusions

- **Increasing eco-efficiency per unit product performance is not sufficient**
- **Instead of making things just time consuming, bigger, more expensive, more difficult => increase happiness per unit of env. impact**
- **Assess rebound effects (Consequential analysis)**
- **Use life events to shift to sustainable consumption patterns (trick the inertia)**

but

Conclusions/2

Look more carefully if people who manage to increase their happiness

- Show indeed less compensating behavior,

and

- Pollute less