Happiness, Time-Use and Public Policy

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Course outline

1. Tuesday, April 20: Choices and Happiness
2. Thursday, April 22: Dissatisfied with Life, but Having a Good Day: Time-Use and Well-Being of the Unemployed
3. Today: Happiness and Public Policy

Happiness and Public Policy

Layard, EJ 2006

The theory behind public economics needs radical reform. It fails to explain the recent history of human welfare and it ignores some of the key findings of modern psychology.

Happiness and Public Policy

- What type of information do we use for public policy?

Accounts of well-being for public policy

1. Desire-fulfillment accounts

- income and wealth increase choice sets
- income and utility are positively correlated

$\Rightarrow$ dealt with in the first lecture

$\Rightarrow$ GDP

Accounts of well-being for public policy

2. Objective-list accounts

- freedom
- peace
- justice
- equal opportunities
- fighting poverty
- fighting crime
- …

⇒ Capability approach (Sen 1999)

⇒ Human Development Index (UN)

⇒ Psychological well-being (Ryff 1989)

Accounts of well-being for public policy

Problems with objective-list accounts

- What should be on the list?
- How should different items be weighted?
- Demand- or supply-driven indicators?
- Cultural differences
- Strong normative concept: what ought to be well-being
  - Paternalism

Accounts of well-being for public policy

3. Mental-state accounts: subjective well-being

- How do people evaluate their lives?
  - life satisfaction
  - domain satisfaction (e.g. job satisfaction, health satisfaction)
- How do people feel in a strict hedonic sense?
  - net affect

Life satisfaction measures

Questions

1. How useful are these new measures for public policy?
   - reliability
   - validity
2. How can they be applied for public policy?

Life satisfaction: reliability

Perfect indicators for happiness?

- False memories
  - duration neglect
  - intensity bias
- Biased anticipation of adaptation insofar expectations enter life satisfaction

Life satisfaction: reliability

Potential bias: accessible information and focusing illusion (Schwarz and Strack, 1999)

- question-ordering
- prior information

Temporary information	Correlation, when question about happiness comes first	Correlation, when question about happiness comes secondly: No prior information	Correlation, when question about happiness comes secondly: Prior information
Dating frequency	–0.12	+0.66	+0.15
Happiness in one's marriage	0.32	+0.67	+0.17

Life satisfaction: reliability

Potential bias: use of memories (Strack, Schwarz und Gschneidinger, JPersSocPsy 1985)

- recall of positive and negative memories enters
  - assessment
  - frame of reference

	Happiness	
	positive memory	**negative memory**
Time horizon		
recent experience	8.9	7.1
old experience	7.5	8.5
Category boundary		
not salient	8.7	7.4
salient	6.2	8.2

Life satisfaction: reliability

Potential bias: mood (Schwarz 1987)

- The dime experiment
  - before a questionnaire, subjects were asked to photocopy a sheet of paper
  - half of them found a dime on the copy machine

$\Rightarrow$ this group reported higher life satisfaction

  - similar: weather-dependent differences (depending on framing)

Life satisfaction

Large panel data sets

- e.g. GSOEP, BHPS
- many problems are wiped out
  - mood
  - conscious misreporting?
  - looking at differences: scaling effect
- remaining problems
  - duration neglect
  - focusing illusion (systematic bias, same order of questions)
  - international comparison

Life satisfaction: validity

Correlates of high life satisfaction and happiness

- Smiling frequency and “unfakeable smile”
- Ratings of one’s happiness made by friends
- Frequent verbal expressions of positive emotions
- Sleep quality
- Happiness of close relatives
- Self-reported health
- High income and income rank in a reference group
- Active involvement in religion
- *Recent* positive changes of circumstances

Affective measures

Net affect

- reliability
  - no focusing illusion
  - no duration neglect
- validity
  - high correlation to other objective measures (tiredness)

$\Rightarrow$ meaningful representation of experienced utility

Affective measures

Net affect

- Time-separable measure
  - e.g. low net affect for child care
  - e.g. weekend effects
- Cardinal measure
  - uniform weights for all affects
  - aggregation if people interpret scales in different ways
- Disaggregation
  - people may not report short but important aspects such as a coffee break

Affective measures

U-Index

- ordinal measure
  - time in which the strongest emotion was a negative one
  - intuitive interpretation
  - independent of individual scale

Affective measures

U-Index

- dependent on how subjects evaluate positive and negative affects
- dependent on which emotions are evaluated
  - happy versus enthusiastic
- sensitive with respect to duration but not with respect to intensity

Affective measures

Episode satisfaction

- more comprehensive picture of a person's affect in one period.
- subjective weights of which emotions and thoughts were most important during some activity.
- Could be subject to cognitive assessments: ("I should have felt good playing with my children!")

Life satisfaction and public policy

1. Correcting for positional externalities
2. Correcting for biased decisions: internalities
3. Fighting unemployment
4. Measuring an neglected input
5. Measures provide additional information
6. Libertarian paternalism
7. Maximizing happiness?

1. Correcting for positional externalities

Easterlin paradox

- if a single person's income increases, happiness rises
- aggregate growth of income has not raised happiness

⇒ **Externality:** two-thirds of aggregate income has no effect because it is status-related, and thus disappears in a zero-sum game.

⇒ **Internality:** 60 percent of the effect at the individual level evaporates within two years due to adaptation.

⇒ Only around 13 percent of the initial individual effect will survive in the long run at the aggregate level.

1. Correcting for positional externalities

Layard, EJ 2006

- Utility function

$$U = U(Y - \alpha \bar{Y}, F)$$

- External effect

$$wU_Y - N\alpha \frac{1}{N} wU_Y = U_F$$

- Pigouvian tax: $t = \alpha$
- progressive tax, because this is only relevant above a certain level: people work less and enjoy more valuable leisure time.

1. Correcting for positional externalities

1. **Deaton (JEP 2008):** new international comparison
   - asking about the "best possible life for you" yields

$$u = \ln(y)$$

⇒ rise in absolute income improves well-being: "Danes understand how bad life is in Togo and other poor places, and the Togolese… understand how good life is in Denmark."

⇒ but: shifting standard that will move upwards with rising living standards over times: Danes continue to report "eight out of ten"

1. Correcting for positional externalities

2. **Arrow and Dasgupta(EJ 2009):** no externality if leisure is a positional good as well

- Alpizar et al. (JEBO 2005) Carlsson et al. (Economica 2007)
  - income is positional, leisure is not
  - income is used for both non-positional and positional consumption (conspicuous consumption)

$\Rightarrow$ differentiated consumption taxes rather than progressive income taxes

1. Correcting for positional externalities

3. **Frey (2008)** positional goods are endogenous

- status seeking is inherent in human behaviour
- a progressive tax may shift status competition away from income to other status goods
  - Veblen: “leisure class”: status was “non-working”
  - Today: being “overworked” means “being important”
  - uniform school dress

1. Correcting for positional externalities

4. **Knabe et al. (2010):** no empirical trade off

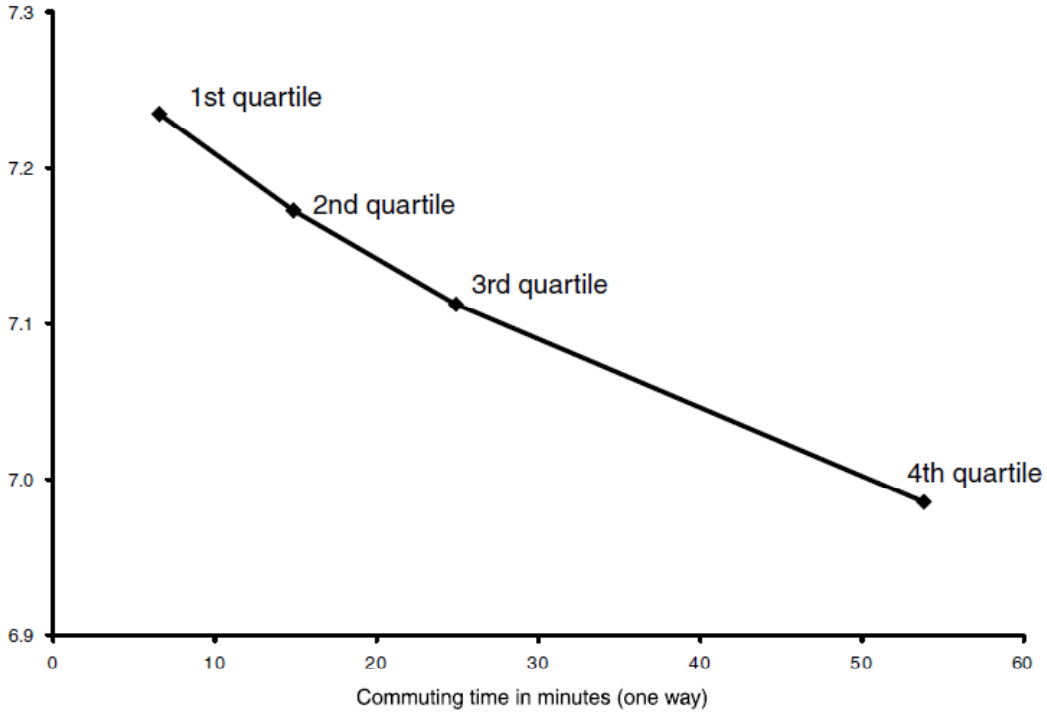
- between six and eleven hours of work: well-being is independent of daily working time
- regression analysis shows non-monotonic effects

$\Rightarrow$ reducing income has no effect on well-being

$\Rightarrow$ increased leisure time has no (or an ambiguous) effect on well-being

2. Correcting for biased decisions

- biases anticipation can be interpreted as an internality
- **Commuting and life satisfactionStutzer and Frey, ScanJE 2008**



2. Correcting for biased decisions

- Intrahoushold compensation?
  - partners are also worse off
- Mean commuting time: 22 minutes (one way)
- Required compensation

  470 €/month = 35% average net income

- Biased anticipation as explanation
  - people belief that they adapt to commuting
  - people underestimate adaptation of income increases or living in a larger house

3. Fighting unemployment

Psychological cost of unemployment

- Knabe and Rätzel (ApplEcon 2010):
  - non-pecuniary cost equal the former income for men
  - non-pecuniary cost are 60% of the former income for women
- Clark et al. (JLE 2003):
  - Scarring effect of unemployment: after becoming re-employed, people continue to report lower life satisfaction

$\Rightarrow$ Standard theory has underestimated the cost of unemployment

3. Fighting unemployment

Reassessing the psychological cost of unemployment

- Knabe et al. (EJ 2010)
  - Dissatisfied with life but having a good day
- Knabe and Rätzel (Economica 2009):
  - scaring effect rather than a scarring effect: unemployment operates via worsened expectations of becoming unemployed in the future and enhanced job security.

3. Fighting unemployment

Reassessing the psychological cost of unemployment

- Hetschko, Knabe and Schöb (work in progress)
  - scarring effect after retirement
- Knabe and Schöb (work in progress)
  - how much of the scaring effect can be attributed to expected future income losses?

3. Life satisfaction as an input

- Life satisfaction may be efficiency-enhancing
  - happy people are healthier
  - happy people live longer
  - happy people may be more productive
  - happy people are less involved in accidents

⇒ but: personal differences as third variable: no policy intervention can change outcome

5. Additional information

2.1 Non-market goods

- Welsch (Kyklos 2002): environmental externalities
- Define the function

$$LZF = F(E, Y)$$

- Marginal rate of substitution

$$MRS = -\frac{dY}{dE} = \frac{F_E}{F_Y}$$

5. Additional information

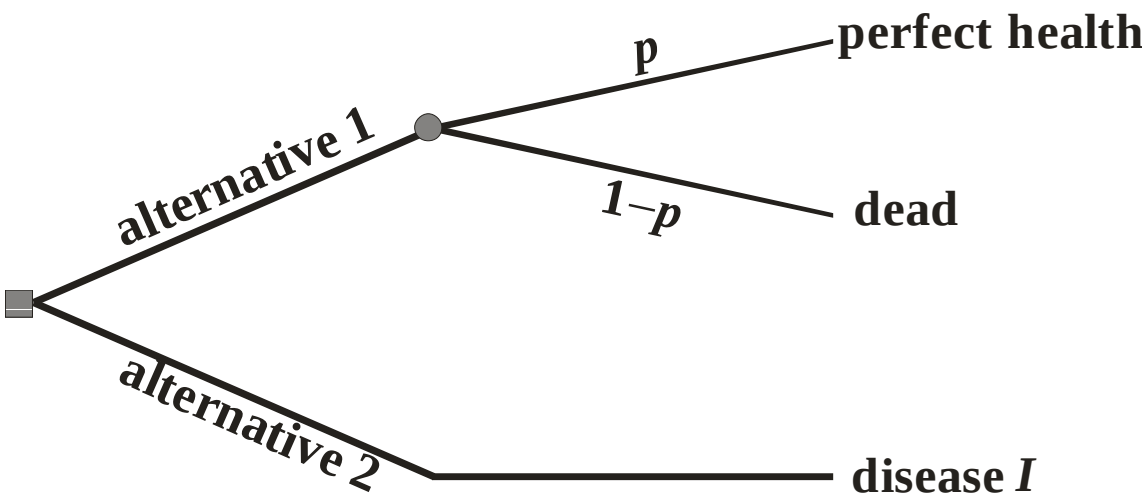
2.1 Non-market goods

- Example: airport noise
  - hedonic prices
  - contingent valuation
  - ⇒ results differ a lot
- Van Praag und Baarsma (EJ 2005)
  - Compensation above a certain noise level:
    - 100 million €/year
    - 250 € per flight
    - 2.73 € per passenger
    - compensation decreases with insulation by >50%

5. Additional information

2.2 Public services

- optimal allocation of scarce resources in the health sector
  - Revealed preference: standard gamble gives us QALY



5. Additional information

- Adaptation of dialysis patients
  - Asking the general public: 0.39
  - Asking dialysis patients: 0.56

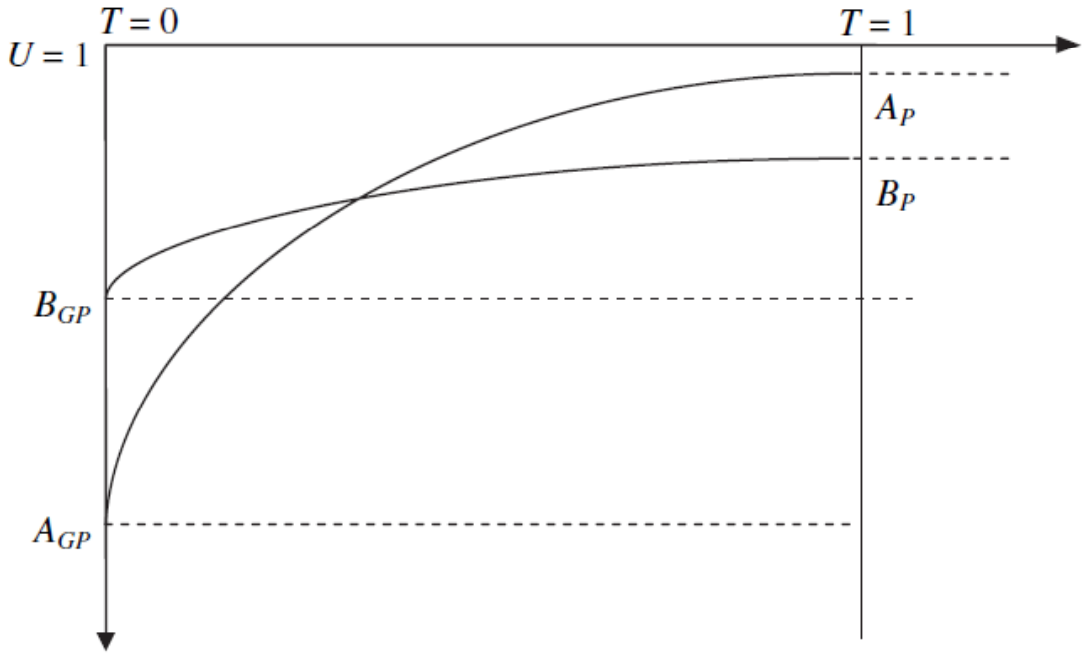
  ⇒ biased anticipation

  ⇒ biased recall

5. Additional information

Dolan und Kahneman, EJ 2008

- Adaptation



⇒ General life satisfaction measure or affect measures can provide additional information: HALY

6. Libertarian paternalism

Thaler and Sunstein, AER 2003

- there is choice but the government choose a preferred option as the policy default

E.g. organ donation (Johnson and Goldstein, Science 2003)

- In countries with “opting out” donation is higher than in countries with “opting in”
  - Opting out: Austria (99.98%), France (99.91%), Sweden (85.9%)
  - Opting in: Germany (12%), UK (17%), Netherlands (27%)

7. Maximizing happiness?

Greatest amount of happiness for the largest number

- Consider unemployment
  - people suffer less in regions with high-unemployment
  - $\Rightarrow$ It may be better to get one unemployed person in a low-unemployment region back into employment

7. Maximizing happiness?

Drugs

Appropriate new drugs (e.g. prozac increases serontonin level and increases mood – no side effects) will enable people whose natures are rough or whose lives have been tough to become happier people.

Layard 2005

7. Maximizing happiness?

Brain stimulation and genetic engineering

Brain stimulation promises high happiness due to the absence of diminishing marginal utility … Nevertheless, the dominance of the genetic factors in determining the set points remains. This suggests that a way to increase happiness by a quantum leap more important than brain stimulation is through genetic engineering.

Ng, EcRec 2008

Conclusion

- Including measures of subjective well-being is likely to improve economic public policy advice
- it is far too early to derive sound policy recommendations from the happiness research
- The discussion indicates that we need a new debate about the **normative foundations** of public economics.