

14.13 Lecture 14

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1 Decision utility

- Economists use the word “utility” to describe the preferences that rationalize observed choices.
- Kahneman calls these revealed preferences “decision utility”.
- These are the preferences that rationalize decisions.
- These are the preferences that coincide with “wanting” and “choosing.”
- For an addict the decision utility of drug consumption exceeds the decision utility of quitting.

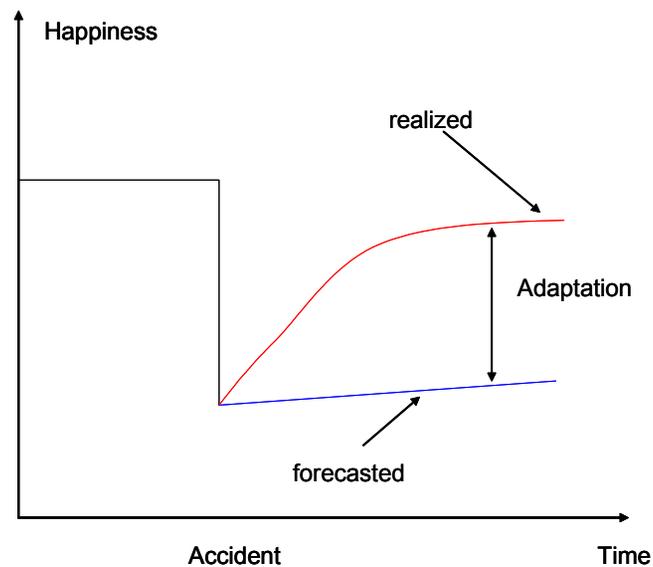
2 Experienced utility

- Kahneman also measures the hedonic consequences of choices.
- He calls these actual hedonic experiences, “experienced utility.”
- These are the preferences that coincide with “doing.”
- This is how Jeremy Bentham (1748-1832) conceived of utility (pleasure and pain)
- How do you measure hedonic experiences (e.g., well-being)?
- How do you discount these experiences over time?

Why might decision utility and experienced utility fail to coincide? A couple examples:

- cognitively hard decision to make, e.g.,
 - choosing a job
 - planning for retirement

- poor forecasts of preference dynamics, e.g.,
 - failures to anticipate adaptation = "psychological immune system" cf Gilbert et al (paraplegics, lottery winners, junior faculty turned down for tenure)



- failures to anticipate visceral effects (Loewenstein's aggression study)

- inaccurate memories of past hedonic experiences (this is where we'll focus today)
- much of this course is about occasional disconnects between decision utility and experienced utility

3 Remembered utility

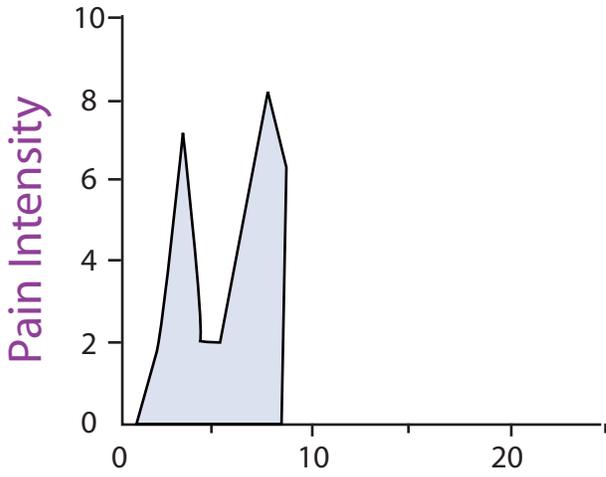
- our memory of a hedonic experience
- remembered utility exhibits duration neglect
- remembered utility follows peak-end rule: global retrospective evaluations are well predicted by an average of the peak affective response recorded during an episode and the end value recorded just before the termination of an episode

Examples of studies:

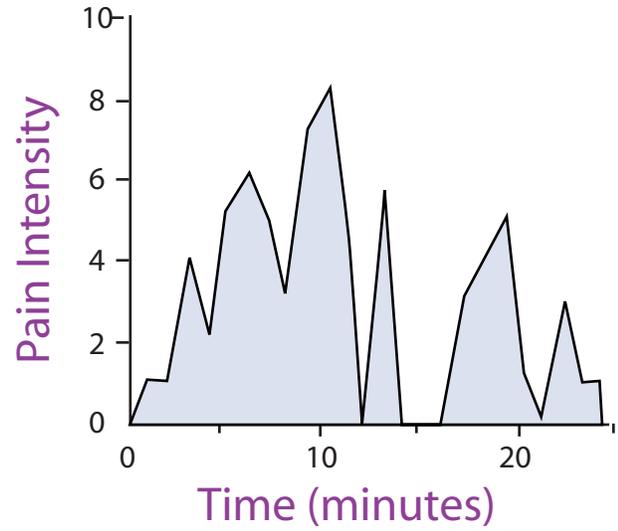
- colonoscopy
- plotless films of pleasant/unpleasant subjects (such as low-level flying over an African landscape or of amputation)
- immersion of one hand in cold water (cold-pressor)
- aversive sounds of varying loudness and duration
- shocked rats

4 Colonoscopy (Katz, Redelmeier, and Kahneman)

- control group: regular colonoscopy
- treatment group: procedure lengthened by one minute with colonoscope inside the body cavity but stationary (nature of condition was not explained to the subjects)
- treatment group had significantly better memories of the overall experience
- how could these insights be used practically?



Patient A



Patient B

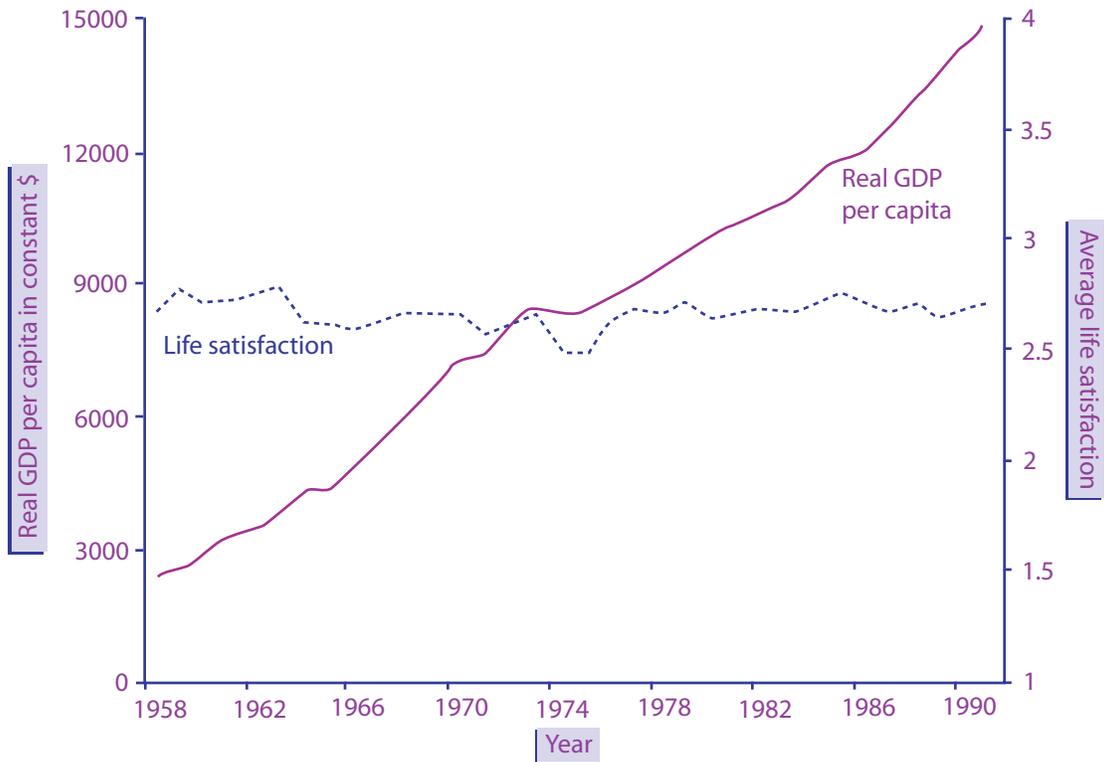
Pain Intensity Reported by Two Colonoscopy Patients, adapted from Kahneman, et al. "Back to Bentham? Explorations of Experienced Utility." *The Quarterly Journal of Economics* 112, no.2 (May 1997).

5 Cold Pressor (Schreiber & Kahneman)

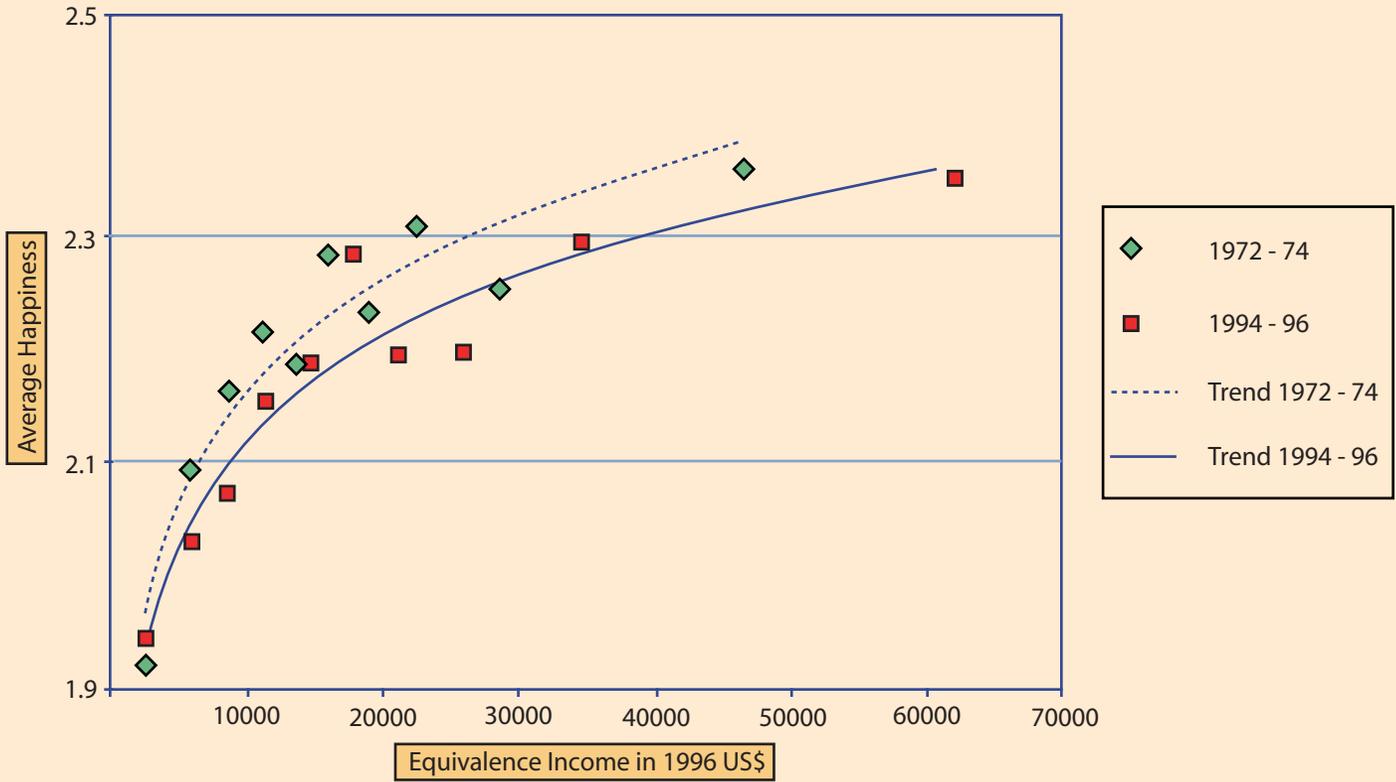
- short trial: hand in 14 degree water (60 sec)
- long trial
 - hand in 14 degree water (60 sec)
 - temp rises to 15 degrees (30 sec)
- 65% of subjects chose to repeat the long trial (so decision utility \neq experienced utility)
- result replicated with aversive noise

6 Comparison of Happiness across countries and time

- Source: Frey and Stutzer “What Can Economists Learn from Happiness Research?”, JEL 2002.
- A simple way to measure happiness: Ask
 - World Values Survey asks, on a scale of 1 to 10: “All things considered, how satisfied are you with your life as a whole these days?”
 - US: General Social Surveys (scale of 1 to 3) “Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?”



Satisfaction with Life and Income Per Capita in Japan between 1958 and 1991, adapted from Frey, et al. "What Can Economists Learn from Happiness Research?" *Journal of Economic Literature* 40, no.2 (June 2002).



Happiness and Equivalence Income in the United States, adapted from Frey, et al. "What Can Economists Learn from Happiness Research?" *Journal of Economic Literature* 40, no.2 (June 2002).

- Japan: no visible correlation between GDP and happiness. Why?
 - adaptation $u = u\left(\frac{c_t}{c_{t-1}}\right)$
 - material success is not happiness (not robust)
 - interviewees interpret the question as "relative happiness" (the average answer to "how tall are you?" doesn't change over the years even if the average height has increased a lot)
 - expectation wise $u = u\left(\frac{c_t}{E_{t-1}[c_t]}\right)$
 - happiness measured from 1 to 10 whereas in principle it could be unbounded