Whose Preferences Should We Use?

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Evaluating Outcomes

- Preference assessments are essential for evaluating outcomes in many policy analyses and planning applications
  - Risk analysis
  - Cost-benefit analysis
  - Program evaluation

- Which outcome evaluations should we use?
  - Different temporal perspectives
  - Participants vs observers
The Three Selves: Whose evaluations to use?

- **The Wanting Self**
  - Choice
  - Forecasting
  - Anticipation
  - Before

- **The Experiencing Self**
  - Sensation
  - Emotion
  - Reaction
  - During

- **The Remembering Self**
  - Memory
  - Regret
  - Interpretation
  - After
Problem:

Outcome evaluations often differ between the three perspectives
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Would you be happier if you were richer?

Yes!
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**The Focusing Illusion: Exaggerating differences**


<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Percentage of time in a bad mood</th>
<th>Actual difference</th>
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<tbody>
<tr>
<td>Household income</td>
<td>&lt;$20,000</td>
<td>32.0</td>
<td>12.2</td>
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<tr>
<td></td>
<td>&gt;$100,000</td>
<td>19.8</td>
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<tr>
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<tr>
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<td>No health insurance</td>
<td>26.6</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>Excellent benefits</td>
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<td></td>
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***p < 0.001.
The Focusing Illusion: Exaggerating differences
(Kahneman, Krueger, Schkade, Schwarz & Stone, 2006, Science)

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<td>17.4</td>
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Experiencing self
Wanting self
The great source of both the misery and disorders of human life seems to arise from over-rating the difference between one permanent situation and another.

– Adam Smith (1759)
Despite a 250% increase in average real income in China from 1994 to 2005, there is no increase in reported life satisfaction
Problem: Things Don’t Last Forever
From Clark, Diener and McCulloch (2001) based on 14 waves of the German Socio-Economic Panel Study (N~26,000)
What is Adaptation?

The hedonic response to a stable feature of life diminishes over time

Standard version

- changes have their largest effect near the time they occur, and
- the longer ago it happened, the less effect a change still has

After changes become states, they lose impact over time

- Becoming a paraplegic vs being a paraplegic
- Getting married vs being married
- Buying a new car vs owning it
Do People Believe They Will Adapt?

General finding: people *underpredict* their own speed and degree of adaptation (both negative and positive)

- Loewenstein & Frederick, 1997 (various, including income)
- Gilbert et al. 1998 (e.g., tenure)
- Schkade & Kahneman, 1998 (living in Cal.)
- Sieff, Dawes & Loewenstein, 1999 (reaction to HIV status)
- Wilson et al, 2000 (win or loss of team, or political candidate)
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Examples of results using evaluated time use
Benefits and Costs of Having a Mate
Does Experience Matter?
(Kahneman & Cohn, 1999; 2000)

- A sample of 737 jury-eligible adults judged the mood of a person who had experienced a major life change
  1) becoming a paraplegic
  2) being blinded
  3) winning the lottery

- Evaluations either one month after or one year after the event

- Respondents were also asked whether they had ever known someone with this experience.
Same prediction after one month -- shared intuition about the initial impact of the change

a) Knows Someone With Condition

b) Knows No One With Condition
But experienced people predict adaptation where inexperienced people don’t.

**a) Knows Someone With Condition**

- After 1 month: % Positive - % Negative Mood
- After 1 year: % Positive - % Negative Mood

**b) Knows No One With Condition**

- After 1 month: % Positive - % Negative Mood
- After 1 year: % Positive - % Negative Mood

- Won lottery
- Blinded
- Paraplegic
Why People Fail to Predict Adaptation

They use the emotion associated with “becoming X” as a proxy for the utility of “being X”

But experience with X does help
Some Health Care Applications
Most patients report a high quality of life

Brickman, Coates, and Janoff-Bulman (1978) Surprisingly small difference in self-reported happiness (on 5 point scale) between paraplegics and matched controls

Wortman and Silver (1987): quadriplegics reported no greater frequency of negative affect than control respondents!

Tyc (1992): “no difference in quality of life or psychiatric symptomatology” in young patients who had lost limbs to cancer compared with those who had not.
Non-patients don’t expect patients to be as happy as they report being

Discrepancy between patients’ evaluations of their own quality of life and non-patients’ evaluations of what their quality of life would be if they had the same health conditions

Chronic dialysis (Sackett and Torrance, 1978)

- Nonpatient predictions .39
- Patient reports .56

Colostomies

- Nonpatient predictions .80
- Patient reports .92
### Caregiver vs patient perspective

Slevin et al., 1990: % who say they'd accept a grueling course of chemotherapy for 3 extra months of life

<table>
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<th>Group</th>
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<tr>
<td>radiotherapists</td>
<td>0%</td>
</tr>
<tr>
<td>oncologists</td>
<td>6%</td>
</tr>
<tr>
<td>healthy persons</td>
<td>10%</td>
</tr>
<tr>
<td>current cancer patients</td>
<td>42%</td>
</tr>
</tbody>
</table>

whose values should we use?
Within-subject study of kidney transplant and dialysis (Ubel et al)

(n=127 dialysis patients who ultimately received transplants; all numbers on 0-100 quality of life scale)

<table>
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<tr>
<th>Pre-transplant</th>
<th>One Year Post-Transplant</th>
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<tr>
<td>Experienced well-being</td>
<td></td>
</tr>
<tr>
<td>Pre-transplant well-being</td>
<td>64.2 → 76.8</td>
</tr>
<tr>
<td>Remembered pre-transplant well-being</td>
<td>47.3 → 91.2</td>
</tr>
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Actual improvement: 12.6  Predicted improvement: 27.0  Remembered improvement: 29.5

Overestimation before and after

Those not transplanted also over-predicted their own misery
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Before
During
After
The experienced utility of an episode

Patients undergoing colonoscopy reported their pain every 60 sec.

“How much did these patients suffer?”

The question is asked from the perspective of an objective observer.

It requires the evaluation of a temporal profile of moment utility.

Observers agree that B suffered more.
The **remembered** utility of an episode

Patients undergoing colonoscopy reported their pain every 60 sec.

“How much did these patients **think** they suffered?”

The question is asked from the subject’s retrospective perspective.
Rules of remembered utility

Correlations with Retrospective Ratings of a Colonoscopy

- Peak and End only \( .67 \)
- Duration of procedure \( .03 \)

“Peak-End Rule”

- The episode is evaluated as a composite moment, which gives much weight to Peak pain and to pain at the End

“Duration-neglect”
Summary

• The same thing looks and feels different Before, During and After.

• The same thing looks and feels different to those who do and don’t have the condition or experience.

• Many things do matter in the short run, but eventually adaptation robs them of their influence.

• Different perspectives for different applications

• Anything you want to say Adam Smith already said 200 years ago