Well-being
Define Well Being—Reflectively

• What is well being for you?
  • What is well being for you now?

• What is well being when you substitute yourself for another:
  • Gender
  • Economic scale
  • Geographic location

• When you imagine yourself meeting all the criteria for well being:
  • Are you happy?
  • Does it change the way you see others?
Outline

Define well-being
  • Reflectively
  • From the literature

Well-being in the sustainability context

Analysis of Well-being—a look through the readings
  • SWB measured objectively
  • Indicators
  • Social-ecological systems and SWB

Discussion
ORIGINS OF WELL-BEING

...Beyond the scope of this class
LIVELIHOOD
- capabilities,
- tangible assets,
- means of living

Happiness

Pleasure

Health
- physical
- mental
- emotional
- spiritual

Wealth

Love
- belonging
- peace

Community
- capacity

Family status
Defining Subjective Well Being

“SWB refers to how people experience and evaluate their lives and specific domains and activities in their lives”
 Alan B. Krueger and Arthur A. Stone

*Life evaluation*

a reflective assessment on a person’s life or some specific aspect of it.

*Affect*

a person’s feelings or emotional states, typically measured with reference to a particular point in time.

*Eudaimonia*

a sense of meaning and purpose in life, or good psychological functioning.
Timeline of SWB in the sustainability context

BRUNDTLAND—MEA—OECD
Well being in the sustainability context

Millennium Ecosystem Assessment  MEA, 2005 : Ecosystem Conditions and Well-being

Five overarching questions, along with more detailed lists of user needs developed through discussions with stakeholders or provided by governments through international conventions, guided the issues that were assessed:

- What are the current condition and trends of ecosystems, ecosystem services, and human well-being?
- What are plausible future changes in ecosystems and their ecosystem services and the consequent changes in human well-being?
- What can be done to enhance well-being and conserve ecosystems? What are the strengths and weaknesses of response options that can be considered to realize or avoid specific futures?
- What are the key uncertainties that hinder effective decision-making concerning ecosystems?
- What tools and methodologies developed and used in the MA can strengthen capacity to assess ecosystems, the services they provide, their impacts on human well-being, and the strengths and weaknesses of response options?
Well being in sustainability context

Maslow’s Hierarchy of Needs in a web:
Figure 3.2. Relationship between ecosystem services and well-being. Adapted from the framework developed by the Millennium Ecosystem Assessment (MEA 2005d).
Well being in sustainability context

OECD, 2009 : Beyond GDP towards metrics, indicators and frameworks

NO INCREASE IN HAPPINESS DESPITE RISING INCOMES IN THE U.S. IN THE LAST 60 YEARS
Measuring SWB from the Literature

EMOTIONAL WELL-BEING vs LIFE EVALUATION

“Emotional well-being is assessed by questions about the presence of various emotions in the experience of yesterday (e.g., enjoyment, happiness, anger, sadness, stress, worry)”

“the respondent rate his or her current life on a ladder scale in which 0 is “the worst possible life for you” and 10 is “the best possible life for you.””

Vignette approach:

Response scales:

Life satisfaction: All things considered, how satisfied are you with your life as a whole these days? Please use this card to help with your answer.
1 ‘Dissatisfied’ 2 3 4 5 6 7 8 9 10 ‘Satisfied’

Framework?
Measuring SWB—Results

raw income—an error avoided by using the logarithm of income. In the present study, we confirm the contribution of higher income to improving individuals’ life evaluation, even among those who are already well off. However, we also find that the effects of income on the emotional dimension of well-being satiate fully at an annual income of ~$75,000, a result that is, of course, independent of whether dollars or log dollars are used as a measure of income.

population ranks high on the ladder (ninth after the Scandinavian countries, Canada, The Netherlands, Switzerland, and New Zealand), and also does well in terms of happiness (fifth), smiling (33rd), and enjoyment (10th), but much less well on worry (89th from best), sadness (69th from best), and anger (75th). Americans report very high levels of stress (fifth among 151 countries).
Figure 1
Life Satisfaction and Per Capita GDP around the World

Source: Penn World Tables 6.2.
Note: Each circle is a country, with diameter proportional to population. GDP per capita in 2003 is measured in purchasing power parity chained dollars at 2000 prices.

Source: Penn World Table 6.2.
Note: Each circle is a country, with diameter proportional to population. The scale on the x-axis is logarithmic. The middle line shows average life satisfaction for each level of per capita GDP while the outer two lines show the same thing, but for two age groups, ages 15 to 25—the upper line for most of the figure—and ages 60 and over—which is usually the lower line. GDP per capita in 2003 is measured in purchasing power parity chained dollars at 2000 prices.

Income, Health, and Well-Being around the World: Evidence from the Gallup World Poll
Angus Deaton
Recap metrics for SWB and some indicators

→ Measure SWB to gage societal progress:
  • Life evaluation
  • Emotional well being (positive and negative)

→ Statistical Agencies:
  get to it!

→ Generate a comprehensive indicator of SWB

HPI—Happy Planet Index (SWB + Life Expectancy + Inequality of outcomes)/ Ecological Footprint
HDI—Human Development Index (aggregate of life expectancy, education, and per capita income)
SDG—UN Sustainable Development Goals (17 goals, 232 indicators)
Future thoughts

Costanza et al., present an aggregate indicator of (SWI) to assess the SDGs shown in Fig. 1.

\[ \text{SWI} = f (E, N, S) \]

Where:  
SWI = Sustainable Wellbeing Index  
E = Net Economic Contribution  
N = Natural Capital/Ecosystem Services Contribution  
S = Social Capital/Community Contribution

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**Table 1**

The 17 SDGs (UN, 2015) clustered under the three elements of sustainable wellbeing shown in Fig. 1.

<table>
<thead>
<tr>
<th>Efficient allocation: building a living economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all</td>
</tr>
<tr>
<td>Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</td>
</tr>
<tr>
<td>Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</td>
</tr>
<tr>
<td>Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable</td>
</tr>
<tr>
<td>Goal 12. Ensure sustainable consumption and production patterns</td>
</tr>
</tbody>
</table>

**Fair distribution: protecting capabilities for flourishing**

| Goal 1. End poverty in all its forms everywhere |
| Goal 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture |
| Goal 3. Ensure healthy lives and promote well-being for all at all ages |
| Goal 4. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all |
| Goal 5. Achieve gender equality and empower all women and girls |
| Goal 10. Reduce inequality within and among countries |
| Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss |

**Sustainable scale: staying within planetary boundaries**

| Goal 6. Ensure availability and sustainable management of water and sanitation for all |
| Goal 13. Take urgent action to combat climate change and its impacts |
| Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development |

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**Fig. 1.** The “means – ends” spectrum showing the three elements of sustainable wellbeing used to cluster the SDGs in Table 1 (Costanza et al., 2014a).
Social Ecological Change and SWB

human well-being. The presentation is not meant to imply that ecosystem changes are linked to human well-being in simple orderly mechanisms. Socioecological systems are dynamic and non-linear, and their response to stress may not be predictable. They typically combine in complicated ways; yet drivers of behavior may be identified, and behavior may be bounded by political, social, technological, or economic limitations. Decision-making behavior about the use of different ecosystem services needs to consider trade-offs in human well-being.

...its complicated!
Social Ecological Change and SWB

Individual WB $\rightarrow$ community resilience $\rightarrow$ social ecological sustainability

**Material Basis**

- Ecosystem services at local and regional levels. Feedback: the less humans meet their basic needs, the less they care in the long run about stewardship.

**Good Social Relations**

- Social capital—networks—solving problems together important for ecosystem stewardship, strength of social networks are critical for building resilient communities.

**Safety and Security**

- Stable livelihoods strongest indicator
  - Food security, disease, conflict, climate change declining access to natural resources and demand for energy increasing.

**Self Esteem and Actualization**

- When immediate material needs are met
  - Ecosystem stewardship stands to benefit the greatest for creative solutions and adaptations under social change.
Social Ecological Change and SWB

Well-being and livelihoods are linked, long-term planning and ecosystem stewardship are predicated on reducing vulnerabilities and enhancing resilience.

“Resilience learning” is a form of social learning that fosters society’s capacity to be prepared for the long term by enhancing its capacity to adapt to change while maintaining sustainability.

1. Improve understanding of SES undergoing changes
2. Convey the value of the issues to decision makers and the public

*Participatory Vulnerability Analysis and Resilience Building:*

Holistic (more than just a fishery): Scale (local regional global): Social networks (place-based research)

Kofinas and Chapin, 2009
Basic needs met → free to think of ecosystem stewardship!

... BUTTT...

“There has been a tendency however for people to seek greater levels of consumption, once their basic needs are met, even though this leads to no measurable increase in happiness”

Story of Stuff by Annie Leonard

Kofinas and Chapin, 2009
Summary

• Life evaluation is a general reflection about the overall state of one’s life
• Emotional Well-being includes daily emotional fluctuations
• Consensus is being reached that a framework for measuring well-being is needed to develop universal indicators as a means of evaluating societal progress
• According to the Gallup World Poll, the U.S. is in the top ten in terms of life evaluation but ranks fifth highest in terms of stress and worry
  • Life evaluation increases linearly with income when plotted against log dollars
  • Emotional well being increases with income until USD 75,000
Summary continued

• Well-being (in terms of vulnerability and resilience)
  • From the ecosystem services perspective this is a complicated relationship
  • Degradation of an ecosystem service may promote local well being but degrade regional well being
• The increase in well-being and its relationship to consumption is different:
  • In affluent segments, an increase in consumption > does not increase emotional well-being (evidence that it decreases EWB)
  • Global south (non-affluent segments) increasing consumption has positive impacts on well being
Discussion

Indicators tell policy makers about their population but don’t themselves change behavior, in the context of consumption vs consumerism:
Can a nuance between consumption and consumerism show up in an indicator, and if not, does that make a universal indicator problematic?

“We need an aggregate indicator that can assess the relative contribution of each of the SDGs and their interactions with each other in order to assess overall progress.”
Do you think that an aggregate indicator that could replace GDP, for example SWB, is a step in the direction of meeting needs for current and future generations, why/why not?

“Once these basic human needs are met, people have greater flexibility to think creatively about options for ecosystem stewardship to meet the needs of future generations in a rapidly changing world.”
Do you agree with this statement, why or why not? What other explanations might account for the dissonance?
References

Images:
Candle
Health cairn
Maslow’s Hierarchy
Ecosystem Services
Faces
Consumption
Ratrace
75k

Content:
4) R. Costanza et al., Ecological Economics, 2015. Modelling and measuring sustainable wellbeing in connection with the UN Sustainable Development Goals