Subjective wellbeing (SWB) measurement
Structure of the workshop

Session A:
Advanced understanding of how the Personal Wellbeing Index is constructed and how its data can be interpreted

Session B:
Special issues concerning subjective measurement and intellectual/cognitive disability
Wellbeing

Objective Conditions
- e.g. Physical wealth, health, etc

Subjective Perceptions
- e.g. Satisfaction with wealth, health, etc

Objective QOL

Subjective Wellbeing
Wellbeing

Objective Conditions
e.g. Physical wealth, health, etc

Objective QOL
Measured by variables that validly and reliably estimated by more than one person

Subjective Perceptions
e.g. Satisfaction with wealth, health, etc

Subjective Wellbeing
Objective conditions

Measured by lists: Income, standard of housing, number of friends, etc.

(a) Lists do not form scales
(b) The most relevant items forming the lists will vary with the population under consideration.

eg. Mothers with children: School availability, assistance in the home, child’s friends, etc

Someone with a disability: Mobility, aids for daily living, meaningful occupation, etc.
Wellbeing

Objective Conditions
-e.g. Physical wealth, health, etc

Subjective Perceptions
-e.g. Satisfaction with wealth, health, etc

Objective QOL
Measured by variables that validly and reliably estimated by more than one person

Subjective Wellbeing
Measured by variables that validly and reliably estimated by ONLY one person
Objective Conditions
  e.g. Physical wealth, health, etc

Subjective Perceptions
  e.g. Satisfaction with wealth, health, etc

Objective QOL

Subjective Wellbeing
  [Mood happiness]

Measured by:
  A list of relevant items
  A response scale

Disability specific?
  Yes, some common items, some different items
  No!
  All items are the same
Two separate issues for the measurement of SWB

1. What questions should we ask?

2. What kind of response scale should we provide?
Issue 1:

What questions should we ask in order to validly measure SWB?
SWB can be measured by a single question

‘How satisfied are you with life as a whole?’

How do people answer this question?

However, multiple item scales are preferable
Derivative scales

Satisfaction with life as a whole

Multi-item global Scale (1985)

Satisfaction with life Scale
5 items asking about ‘life as a whole’
The Satisfaction With Life Scale
Diener, Emmons, Larsen, and Griffin (1985)

Strongly agree

In most ways my life is close to my ideal.

The conditions of my life are excellent.

I am satisfied with my life.

So far I have gotten the important things I want in life.

If I could live my life over, I would change almost nothing.

Strongly disagree
Conclusion

The SWLS has no clear added value as an alternative of the single-item life satisfaction.

In conclusion, it is recommended that a single-item measure be used instead of the SWLS.
Derivative scales

Satisfaction with life as a whole

Multi-item global scale

Satisfaction with life Scale
5 items asking about ‘life as a whole’

Deconstruction scale

Personal Wellbeing Index
7 items representing the First Level Deconstruction Of ‘life as a whole’
NB.
The items in this scale do not differ between population groups

“How satisfied are you with your -----?”

- Standard of living
- Health
- Achieving in life
- Relationships
- Safety
- Community connectedness
- Future security

Subjective Wellbeing
Psychometrics

1. Is the PWI reliable?
Personal Wellbeing Index
2001 - 2013

This represents a 3.0 percentage point variation
Psychometrics

1. It is highly reliable

2. Is the PWI valid?
PWI Validity

Satisfaction with life as a whole

Multi-item global scale

Deconstruction scale

Satisfaction with life Scale
5 items asking about ‘life as a whole’

r = .7 - .8

Personal Wellbeing Index
7 items representing the First Level Deconstruction Of ‘life as a whole’

r = .7 - .8

r = .7 - .8
Psycometrics

1. Is the PWI reliable?
2. Is the PWI valid?
3. Do the 7 domains contribute equally to the total measure of SWB?
Domains: all must contribute unique variance

“How satisfied are you with your life as a whole?”

Standard of living

Health

Achieving in life

Relationships

Safety

Community connectedness

Future security
So, the PWI yields two kinds of values

1. An over-all average [Subjective wellbeing]
2. A value for each domain that indicates its unique contribution to the SWB total
Do the domains of the Personal Wellbeing Index meet this criterion?

A bit----

It depends on the country
## Personal Wellbeing Index (Australia)

Predicting satisfaction with Life as a whole

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<thead>
<tr>
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<th>β</th>
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<tbody>
<tr>
<td>1. Standard of living</td>
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<td>.34</td>
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<tr>
<td>2. Health</td>
<td>.07**</td>
<td>.08</td>
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<tr>
<td>3. Achievements in life</td>
<td>.21**</td>
<td>.20</td>
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<tr>
<td>4. Personal relationships</td>
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<td>.24</td>
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<td><strong>5. How safe you feel</strong></td>
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<td>6. Community connect.</td>
<td>.07**</td>
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<tr>
<td>7. Future security</td>
<td>.06**</td>
<td>.07</td>
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**p<.01  Adj $R^2 = .52$

Unique = .16; Shared = .36
## Italy

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<td>0.103</td>
<td>0.131 **</td>
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<td>0.135 **</td>
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<td>0.190 **</td>
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<td>0.357</td>
<td>0.327</td>
<td>0.330</td>
<td>0.343</td>
<td>0.065</td>
<td>0.090 *</td>
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</tbody>
</table>

Adjusted \(R^2 = 0.49\)
Sleeper domains

Domains that contribute only shared variance in some countries

The aim of the PWI construction is to minimize the number of such domains
Psychometrics

1. Is the PWI reliable?
2. Is the PWI valid?
3. Do the 7 domains contribute equally to the total measure of SWB?
4. How do we know there are only 7 domains?
Can we discover any more domains?

( Personal Wellbeing Index )

“How satisfied are you with----?

- Standard of living
- Health
- Achieving in life
- Relationships
- Safety
- Community connectedness
- Future security

“How satisfied are you with your spirituality/religion?”
(1) In a hierarchical regression predicting ‘Satisfaction with life as a whole’, where the 7 domains are entered as step 1, when the new putative domain is entered in step 2, it must contribute unique variance.
How satisfied are you with your life as a whole?
(1) In a hierarchical regression predicting ‘Satisfaction with life as a whole’, where the 7 domains are entered as step 1, when the new putative domain is entered in step 2, it must contribute unique variance.

(2) The new putative domain must not systematically reduce the contribution of unique variance, made by any of the existing domains, to the point that their contribution becomes non-significant.
How satisfied are you with your life as a whole?
Columbia for spiritual/religious wellbeing

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<th>( p = R^2 )</th>
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<td>Health</td>
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<tr>
<td>Achieving</td>
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<tr>
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<td>Safety</td>
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<td>.036</td>
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<td><strong>Total</strong></td>
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<td><strong>Step 2:</strong></td>
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<td>Community</td>
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<tr>
<td>Future sec.</td>
<td>.14</td>
<td>.000</td>
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<tr>
<td>Spiritual</td>
<td>.13</td>
<td>.000</td>
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<tr>
<td><strong>Total</strong></td>
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<td>( .494 )</td>
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</tbody>
</table>
The International Wellbeing Group 50
Countries and Provinces

Algeria
Argentina
Australia
Belgium
Brazil
Canada
China
   (Hong Kong )
   (Macau)
   (Qinghai province, Yushu prefecture)
   (Shandong Province)
Columbia
Croatia
England
Finland
France
Germany
Greenland
Hungary
India
Iran
Ireland
Israel
Italy
Japan
Laos
Latin America
Lebanon
Malaysia
Mauritius
Mexico
Netherlands
New Zealand
Norway
Pakistan
Philippines
Poland
Portugal
Romania
Russia
Rwanda
Singapore
Slovakia
South Africa
Spain
Switzerland
Taiwan
Thailand
Turkey
USA
West Indies
Members within Israel

Dr. Opher Zahavi
Applied Research manager, Beit Ekstein Organization

Dr. Shirli Werner
Lecturer, Paul Baerwald School of Social Work and Social Welfare, Hebrew University of Jerusalem

Professor Sara Carmel
Professor and Head Departments of Sociology of Health and Gerontology, Ben-Guriun University of the Negev

Vered Golan
School of Social Work at Haifa University

Contact details
http://www.deakin.edu.au/research/acqol/iwbg/members/
Psychometrics

1. It is highly reliable

2. It meets the deconstruction criterion of all items contributing unique variance to ‘life as a whole’

3. It is valid due to its theoretical and empirical construction

4. The domains can be informative about the areas of life that change
So, the PWI yields two kinds of values

1. An over-all average [Subjective wellbeing]

2. A value for each domain that can be used diagnostically
Normative range for group mean scores

Analysis at the level of domains can be used as a diagnostic device
Less than 1 hour per day of primary caregiving responsibility

Domains:
- PWI
- Living Standard
- Health
- Achieving
- Relations
- Safety
- Community
- Future Security

Levels of satisfaction:
- Level of satisfaction
- Normative range

Values:
- PWI: 66.4, 76.4
- Living Standard: 73.4, 75.4
- Health: 75.3, 76.2
- Achieving: 73.8, 75.7
- Relations: 71.9, 77.0
- Safety: 76.0, 81.6
- Community: 71.8, 81.1
- Future Security: 65.0, 68.1
From 1-2 hours per day of primary caregiving responsibility

Domains

Level of satisfaction

Normative range
Psychometrics

1. It is highly reliable

2. It meets the deconstruction criterion of all items contributing unique variance to ‘life as a whole’

3. It is valid due to its theoretical and empirical construction

4. The domains can be used as diagnostic devices

5. It is sensitive
Age and subjective wellbeing

Subjective wellbeing

Age

18-25 26-35 36-45 46-55 56-65 66-75 76+
Issue 2:

What kind of response scale should we provide?
Why we should NOT use Likert scales

1. The adjectival descriptors do not have equal psychometric spacing

2. People can make more than five degrees of discrimination

3. The requirement for adjectival descriptors limits the number of choice-points
Problems

1. Scoring is very time consuming

2. There is no reliable evidence that this form of scale yields better data than appropriate categorical scales

3. People cannot reliably make 100 levels of judgement in relation to subjective ratings

4. People can make $7 \pm 2$ (ie 5 – 9) reliable levels of judgment on a continuum
[Jones and Thurstone, 1955]

11-point, end-defined scale

How satisfied are you with your ----?

No satisfaction at all

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</tbody>
</table>
We code all data to lie on a range from 0 to 100.

Complete dissatisfaction

0

Complete satisfaction

100
Conclusions

1. The Personal Wellbeing Index is an excellent scale to measure subjective wellbeing

2. End-defined, 11-point response scales (0-10) are recommended.

3. We measures the SWB of people who are disabled in EXACTLY the same way as we do for non-disabled people [except for some technical differences].