Dimensions of Grace

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Dimensions of Grace

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Rodger K. Bufford
George Fox University
IV. Psychology of Grace

• Whenever we attempt to investigate something scientifically, we need a way to measure it:
  – tape measures or calipers,
  – beakers or gram scales

• So it is with grace: we need a measure.
IV. Psychology of Grace

We need a measure.

- In psychology we measure lots of things:
  - Intelligence,
  - Personality,
  - Psychopathology, etc.
- Some remain challenging and controversial even after years or decades of research.
- Grace poses similar difficulties.
IV. Psychology of Grace

• At present we know of three grace measures—make that four.
  1. Grace Scale (Payton, Spradlin, & Bufford, 2000; Spradlin, 2002)
  2. Richmont Grace Scale (Sizemore et al, 2010)
  3. TAGS-The Amazing Grace Scale (Bassett et al, 2013)
  4. GRACE (Sells, Beckenbach, & Patrick, 2009)
IV. Psychology of Grace

- Do they measure the same thing?
- Can we make a better measure?
Study 1 Participants (N = 152)

- Gender
  - 110 Female (73%)
  - 41 Male (27%)

- Race
  - 126 Caucasian (83%)
  - 17 African-American (11%)
  - Other 4 (2.6%)
  - No response 5 (3.4%)

- Religion
  - 126 Christian (88%)
  - 6 No religion (4%)
  - 3 Agnostic (2%)
  - 2 Other (1.4%)

- Dawkins Atheism
  - 94 (62%) “I know God exists”
  - 38 (25%) “I strongly believe God exists”
  - 17 (12%) other
Study 1 Materials

Demographic Questionnaire

Grace Measures

• Grace Scale (GS) (Payton, Spradlin, & Bufford, 2000; Spradlin, 2002).

• The Richmont Grace Scale (RGS) (Blackburn, Sisemore, Smith, & Re, 2012; Sisemore, et al 2011; Watson, Chen & Sisemore, 2011).

Study 1 Materials

• **Spiritual Well-Being Scale (SWB)** (Ellison, 1982; Paloutzian & Ellison, 1981; Paloutzian, Bufford, & Wildman, 2012).

• **Gratitude Questionnaire-6 (GQ-6).** (McCullough, Emmons, & Tsang, 2002)

• **Brief R-COPE.** (Pargament, Koenig, & Perez, 2000; Pargament, Feuille, & Burdzy, 2011)

• **Internalized Shame Scale (ISS).** (Cook, 1987)

• **ACORN Scale.** (Minami, Brown, McCulloch, & Bolstrom, 2010)

• **Adverse Childhood Experiences Scale (ACES).** (Felitti, Anda et al, 1998).
Study 1 Results:
Do They Measure the Same Thing?

Gender
• No gender differences were found for any of the grace measures.

Ethnicity
• No differences related to ethnic background were found for any of the grace measures.

Religious Affiliation
• Significant main effects were found for all three grace measures on the single demographic item on religious affiliation
Study 1 Results: Do They Measure the Same Thing?

Religious Profession

• Significant main effects were found for all three grace measures on the single demographic item of Christian profession
  ▪ GS ($F_{3, 125} = 10.59; p < .001$)
  ▪ RGS ($F_{3, 133} = 18.40; p < .001$)
  ▪ TAGS ($F_{3, 134} = 52.61; p < .001$)

• Those who professed to be Christian scored higher on all grace measures
Study 1 Results: Do They Measure the Same Thing?

Dawkins Atheism Scale

• Significant main effects were found for all three grace measures
  • GS ($F_{2, 134} = 14.32; p < .001$)
  • RGS ($F_{2, 134} = 12.70; p < .001$)
  • TAGS ($F_{2, 134} = 52.61; p < .001$)
• Those with belief in God scored higher on all grace measures
## Study 1 Results:

### Table 1

Descriptive Results and Internal Consistency for Research Measures

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alpha</th>
<th>Mean</th>
<th>SD</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grace Scale (40 items)</td>
<td>.73</td>
<td>182.89</td>
<td>19.64</td>
<td>-.28</td>
<td>-.60</td>
</tr>
<tr>
<td>RGS (15 items)</td>
<td>.93</td>
<td>149.04</td>
<td>25.63</td>
<td>-.73</td>
<td>-.16</td>
</tr>
<tr>
<td>TAGS (27 items)</td>
<td>.97</td>
<td>82.36</td>
<td>19.56</td>
<td>-1.12</td>
<td>1.03</td>
</tr>
</tbody>
</table>
### Study 1 Results:

#### Table 2

**Correlations of Grace Measures with Each Other**

<table>
<thead>
<tr>
<th>Measure</th>
<th>GS</th>
<th>RGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richmont Grace Scale</td>
<td>.66**</td>
<td></td>
</tr>
<tr>
<td>The Amazing Grace Scale</td>
<td>.55**</td>
<td>.65**</td>
</tr>
</tbody>
</table>

Note N ranged from 129 to 144.

Here they seem to measure somewhat the same things.

[In study 2 correlations were .69**, .69**, and .68**]
<table>
<thead>
<tr>
<th>Measure</th>
<th>GS</th>
<th>RGS</th>
<th>TAGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RWB</td>
<td>.57**</td>
<td>.65**</td>
<td>.79**</td>
</tr>
<tr>
<td>EWB</td>
<td>.55**</td>
<td>.48**</td>
<td>.44**</td>
</tr>
<tr>
<td>SWB</td>
<td>.65**</td>
<td>.68**</td>
<td>.77**</td>
</tr>
<tr>
<td>Gratitude-6</td>
<td>.38**</td>
<td>.42**</td>
<td>.38**</td>
</tr>
<tr>
<td>R-COPE Positive</td>
<td>.45**</td>
<td>.60**</td>
<td>.80**</td>
</tr>
<tr>
<td>R-COPE Negative</td>
<td>-.37**</td>
<td>-.32**</td>
<td>-.09</td>
</tr>
<tr>
<td>Internalized Shame</td>
<td>-.56**</td>
<td>-.32**</td>
<td>-.14</td>
</tr>
<tr>
<td>ACE</td>
<td>-.24**</td>
<td>.17</td>
<td>-.04</td>
</tr>
<tr>
<td>ACORN</td>
<td>-.37**</td>
<td>-.09</td>
<td>-.10</td>
</tr>
</tbody>
</table>

Note: N ranged from 129 to 144.

Here not so much the same . . .
IV. Psychology of Grace: Study 2

A technical challenge: factor analysis

- Correlation considers two measures or variables
- Factor Analysis considers many items at once—here 83 items

- Put simplistically, there are three dimensions:
  - How many clusters of items do we get
  - How many items are included in each cluster
  - How strongly are the items related to each other within a cluster
### Study 2 Participants (N = 519)

- **Gender**
  - 364 Female (70.1%)
  - 151 Male (29.1%)

- **Race**
  - 427 Caucasian (82.3%)
  - 46 African-American (8.9%)
  - Asian 24 (4.6%)
  - Hispanic 26 (5.0%)
  - Native American 8 (1.5%)
  - No response 4 (0.8%)

- **Religion**
  - 466 Christian (89.8%)
  - 13 Agnostic (2.5%)
  - 2 Atheist (0.4%)
  - 2 Islamic (0.4%)
  - 1 Hindu (0.2%)
Study 2 Materials

Demographic Questionnaire

Grace Measures

• **Grace Scale (GS)** (Payton, Spradlin, & Bufford, 2000; Spradlin, 2002)

• **The Richmont Grace Scale (RGS)** (Blackburn, Sisemore, Smith, & Re, 2012; Sisemore, et al 2011; Watson, Chen & Sisemore, 2011)

• **The Amazing Grace Scale (TAGS)** (Bassett, Felinski, et al, 2012)
Study 2 Materials

- **Spiritual Well-Being Scale (SWB)** (Ellison, 1982; Paloutzian & Ellison, 1981; Paloutzian, Bufford, & Wildman, 2012).
- **Gratitude Questionnaire-6 (GQ-6)**. (McCullough, Emmons, & Tsang, 2002)
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- **Adverse Childhood Experiences Scale (ACES)**. (Felitti et al, 1998).
IV. Psychology of Grace: Study 2 Factor Results

Scree Plot

Eigenvalue vs. Component Number
IV. Psychology of Grace: Study 2 Factor Results

Oblimin rotation—correlated factors

• Forced 2, 3, 4, 5, 6, 7, and 8 factor solutions suggested that the 5 factor solution was best

• It loaded the most items cleanly on a single factor.

• Very strong first factor

• Modestly strong additional factors
IV. Psychology of Grace: Study 2 Factor Results

- Factor 1: Eigenvalue 25.55
- Factor 2: Eigenvalue 6.60
- Factor 3: Eigenvalue 4.94
- Factor 4: Eigenvalue 3.47
- Factor 5: Eigenvalue 2.53
So five factors

1. Experiencing God’s grace—27 items
2. Costly grace—12 items
3. Grace to self—7 items
4. Grace from others—8 items
5. Grace to others—9 items
### IV. Psychology of Grace: Study 2

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alpha</th>
<th>Mean</th>
<th>SD</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-1 Experiencing God’s Grace</td>
<td>.98</td>
<td>5.60</td>
<td>1.12</td>
<td>-1.27</td>
<td>1.65</td>
</tr>
<tr>
<td>F-2 Costly Grace</td>
<td>.94</td>
<td>5.87</td>
<td>1.15</td>
<td>-1.28</td>
<td>1.45</td>
</tr>
<tr>
<td>F-3 Grace to Self</td>
<td>.76</td>
<td>3.20</td>
<td>0.95</td>
<td>0.11</td>
<td>-0.21</td>
</tr>
<tr>
<td>F-4 Grace from Others</td>
<td>.84</td>
<td>5.32</td>
<td>1.29</td>
<td>-0.66</td>
<td>-0.34</td>
</tr>
<tr>
<td>F-5 Grace to Others</td>
<td>.71</td>
<td>4.42</td>
<td>1.00</td>
<td>-0.07</td>
<td>-0.43</td>
</tr>
</tbody>
</table>
## IV. Psychology of Grace: Study 2

### Grace Factor Correlations

<table>
<thead>
<tr>
<th>Measure</th>
<th>F-1</th>
<th>F-2</th>
<th>F-3</th>
<th>F-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-1 Experiencing God’s Grace</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-2 Costly Grace</td>
<td>.47**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-3 Grace to Self</td>
<td>.09</td>
<td>.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-4 Grace from others</td>
<td>.24**</td>
<td>.27**</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>F-5 Grace to Others</td>
<td>.38**</td>
<td>.49**</td>
<td>.08</td>
<td>.23**</td>
</tr>
</tbody>
</table>

*Encountering Grace - GFU March 2015*
### IV. Psychology of Grace: Study 2

Grace Factor Correlations with other Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>F-1</th>
<th>F-2</th>
<th>F-3</th>
<th>F-4</th>
<th>F-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Well-Being</td>
<td>.63**</td>
<td>.40**</td>
<td>.25**</td>
<td>.24**</td>
<td>.35**</td>
</tr>
<tr>
<td>Gratitude 6</td>
<td>.41**</td>
<td>.36**</td>
<td>.05</td>
<td>.25**</td>
<td>.26**</td>
</tr>
<tr>
<td>R-COPE Positive</td>
<td>.78**</td>
<td>.39**</td>
<td>-.01</td>
<td>.17**</td>
<td>.30**</td>
</tr>
<tr>
<td>R-COPE Negative</td>
<td>-.08</td>
<td>-.32**</td>
<td>-.21**</td>
<td>-.20**</td>
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<td>Adverse Childhood Exper</td>
<td>-.05</td>
<td>.14**</td>
<td>-.18**</td>
<td>-.39**</td>
<td>.04</td>
</tr>
</tbody>
</table>
Next steps

• Concerns
  – Skew
  – Kurtosis
  – Number of items: 83 is way too many

• Selection of items for proposed new scale
  – Minimize skew
  – Minimize kurtosis
  – Limit number of items
IV. Psychology of Grace: Study 2

Proposed 36-item *Dimensions of Grace Scale*

- **Experiencing God’s grace**—8 items
- **Costly grace**—7 items . . . . . . . . . . . .
- **Grace to self**—7 items
- **Grace from others**—7 items . . . . . . . .
- **Grace to others**—7 items

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### IV. Psychology of Grace: Item Examples

<table>
<thead>
<tr>
<th>Item</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-1</td>
<td>Experiencing God’s Grace</td>
</tr>
<tr>
<td></td>
<td>God is in the process of making me more like Jesus</td>
</tr>
<tr>
<td>F-2</td>
<td>Costly Grace</td>
</tr>
<tr>
<td></td>
<td>*The harder I work, the more I earn God’s favor.</td>
</tr>
<tr>
<td>F-3</td>
<td>Grace to Self</td>
</tr>
<tr>
<td></td>
<td>*I tend to be hard on myself.</td>
</tr>
</tbody>
</table>
IV. Psychology of Grace: Item Examples

F-4 Grace from Others

   As a child I was confident that at least one of my parents loved me no matter what.

F-5 Grace to Others

   *I need to see remorse before I offer forgiveness.
IV. Psychology of Grace: Discussion

What are our current concerns and limitations of the measure?

• What’s missing: have we adequately grasped grace?
• Yay and naysaying
• Re-visit factors: both positive and negative loadings
• Generality 1: similar participants
• Generality 2: different participants—Asians, Bosnians, children, elderly, less educated, poor, etc.
IV. Psychology of Grace: Discussion

What about other considerations?

• What fosters the experience and enactment of human grace?
• What inhibits the experience and enactment of human grace?
• What are the results of experiencing grace?
  – Gratitude? – there is much more psychological research
  – Praise?
  – Enhanced well-being?
We now have a new measure so we can further study grace

- A 36-item *Dimensions of Grace Scale* that seeks to measure 5 dimensions.
- Adequate to good internal consistency
- Preliminary support for validity
- Five additional studies are under way using this new measure

We also have questions:

- How good is the measure?
- Can it be further improved?
- What can we learn about grace from it?
Questions & Audience Discussion


Selected References


Selected References

