Dimensions of Grace

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Dimensions of Grace
CAPS, 2014

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¹George Fox University
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Amish Grace

• In the aftermath of the shooting of ten school-girls in the Amish town of Nickel Mines, the world was amazed at the outpouring of grace and forgiveness from the Amish community to the family of the shooter, Charles Roberts.

• Insert video clip??
http://www.youtube.com/watch?v=JFSNI54Wovc

Introduction

Grace is a major theme in Christian theology

- Grace is described as unmerited favor
- Grace is getting better than you or I deserve

Despite more than half a decade of exploring the interrelationships of Christian beliefs and modern psychology, grace remains little studied empirically
Introduction

The world believes:

- What goes around comes around
- You get what you deserve & deserve what you get

That’s fatalism
It’s the struggle of Job and his friends
It’s my struggle—and yours, too, at times
Grace is getting—or giving—better than is deserved.
Introduction

Shame

• Several measures of shame have been developed (e.g., Cook, 1997; Thurston & Craddock O’Leary, 2009)

• Shame has been fairly extensively studied (e.g., Tangney, 1995; 1996; Tangney & Fisher, 1995)

Grace

• The experience of grace is the counterpart to shame

• It is only by grace that fallen humans can enter into the presence of a holy God.

• Several writers have addressed grace from theoretical perspectives (e.g., Dudley, 1995; McKey, 1998; McMinn, 2008; McMinn, Ruiz, Marx, Wright, & Gilbert, 2006; Wahking, 1992; Yancey, 2002)
Introduction

• P. J. Watson and colleagues introduced study of grace in the 1980s (Watson, Morris & Hood, 1988; Watson et al 1988a, 1988b, 1989)

• Recently, three grace measures have been developed, each used in two or three studies:
  – The Amazing Grace Scale (Bassett, Fallinski et al, 2012)
  – Grace Scale (Payton, Spradlin, & Bufford, 2000; Spradlin, 2002)
  – Richmont Grace Scale (Blackburn, Sisemore, Smith, & Re, 2012; Sisemore, Swanson et al, 2011; Watson, Chen, & Sizemore, 2011)
Introduction

• The present study is a follow-up to that of Bufford, Bassett, Blackburn, & Sizemore (2013)

• Bufford et al found further support for the reliability and validity of the three grace measures.

• They also found that the three grace measures captured different aspects of or concepts of grace
  – They were moderately to strongly correlated with each other
  – They showed different correlations with other variables.
# Introduction:
Grace Scale Correlations (Bufford et al, 2013)

<table>
<thead>
<tr>
<th></th>
<th>Grace Scale</th>
<th>Richmont Grace Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grace Scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmont Grace Scale</td>
<td>0.66**</td>
<td></td>
</tr>
<tr>
<td>The Amazing Grace</td>
<td>0.55**</td>
<td>0.65**</td>
</tr>
<tr>
<td>Scale</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Amazing Grace Scale
Selected Correlates:
Bufford et al 2013

<table>
<thead>
<tr>
<th>Measure</th>
<th>Grace Scale</th>
<th>Richmont Grace Scale</th>
<th>The Amazing Grace Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Cope Positive</td>
<td>0.45**</td>
<td>0.60**</td>
<td>0.80**</td>
</tr>
<tr>
<td>R-Cope Negative</td>
<td>-0.37**</td>
<td>-0.32**</td>
<td>-0.09</td>
</tr>
<tr>
<td>ACE</td>
<td>-0.24**</td>
<td>0.17</td>
<td>-0.04</td>
</tr>
<tr>
<td>ACORN</td>
<td>-0.37**</td>
<td>-0.09</td>
<td>-0.10</td>
</tr>
<tr>
<td>Internalized Shame</td>
<td>-0.56**</td>
<td>-0.32**</td>
<td>-0.14</td>
</tr>
</tbody>
</table>
Introduction

• This study provides a second step toward efforts to combine items of these preliminary grace scales to develop and validate a better grace measure.

• It uses factor analysis to explore whether the three measures are measuring a single dimension, or more than one dimensions of grace.

• The findings of Bufford et al (2013) suggest the latter.
Method

Participants
• A total of 519 participants responded.
• Ethnicity:
  – 82.3% (427) were Caucasian/White
  – 8.9% (46) were African-American/Black
  – 4.6% (24) were Asian-American
  – 5% (26) were Hispanic
  – 1.5% (8) were Native American
• Among participants
  – 29.1% (151) were male
  – 70.1% were female (364)
  – 0.8% did not respond (4)
Method

Participants

• Participants were mostly Christian by self report
  – 84.3% Christian; N = 466
  – 2.4% Agnostic; N = 13
  – 1.0% were Atheist (2), Hindu(1), or Islamist (2)
  – 3.4% Not affiliated; N = 19
  – 16 did not respond
Method

Materials: Demographic Questionnaire.
- age
- education
- gender
- ethnicity
- religious affiliation
- frequency of attendance at religious services
- engagement in personal religious activities (devotions, prayers or rituals)
- life satisfaction
- importance of religious beliefs and practices
- degree of belief in God
- Dawkins Atheism Question
Method

Materials

• Demographic Questionnaire.

Grace Measures

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

• The Richmont Grace Scale (RGS). (Blackburn, Sisemore, Smith, & Re, 2012; Sisemore, et al 2011; Watson, Chen & Sisemore, 2011). Alpha in this study was .93.

Method

Materials

Criterion Measures

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

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

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

• **Adverse Childhood Experiences Scale (ACES)**. (Felitti, Anda et al, 1998).

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

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

Grace Measures

- **Grace Scale (GS; Payton, Spradlin, & Bufford, 2000; Spradlin, 2002)**
  - 40-item measure of the experience of grace. It showed
  - Adequate internal consistency
  - No gender differences.
  - Inversely related to shame

- **The Richmont Grace Scale (RGS; Blackburn, Sisemore, Smith, & Re, 2012; Sisemore, et al 2011; Watson, Chen & Sisemore, 2011).**
  - 27 item measure
  - Adequate internal consistency
  - Expected convergent and divergent validity

- **The Amazing Grace Scale (TAGS; Bassett, Felinski, et al, 2012)**
  - 16 items
  - Good internal consistency
  - Positively correlated with intrinsic religious orientation, empathy, forgiveness, and gratitude
Method

Criterion Measures-A

- **Internalized Shame Scale (ISS; Cook, 1987)**
  - 30 item self-report measure of shame. It has demonstrated
  - adequate internal consistency and provides a
  - face-valid measure of shame

- **Spiritual Well-Being Scale (SWB; Ellison, 1982; Paloutzian & Ellison, 1981; Paloutzian, Bufford, & Wildman, 2012)**
  - 20 items
  - Measure spiritual well-being in terms of a vertical dimension involving relationship with God and a horizontal dimension involving relationship with others and the world around us. It is
  - One of the most widely used measures of religion/spirituality with extensive support

- **Brief R-COPE (R-COPE; Pargament, Koenig, & Perez, 2000; Pargament, Feuille,&Burdzy, 2011)**
  - 6-item version of R-COPE that preserves the original two dimensions of positive and negative religious coping
  - Religious coping has been found to be a preferred form of coping for many individuals in the U.S.
Method

Criterion Measures-B

• **Adverse Childhood Experiences Scale (ACES; Felitti, Anda et al, 1998)**
  – Ten-item list of adverse events that many individuals experience during
  – Yes/no responses about emotional neglect, physical and sexual abuse, etc.
  – Suicide, repeated medical complaints, substance abuse, cancer, HIV positive status, and a variety of adult illnesses were powerfully related

• **Gratitude Questionnaire-6 (GQ-6; McCullough et al, 2002)**.
  – Six-item self-report measure of grateful attitude in adults
  – Gratitude is an emotional trait, mood, or emotion (McCullough, Emmons, & Tsang, 2002)
  – A virtue (Emmons, 2004)
  – A moral barometer, reinforcer, and motive (McCullough, Kilpatrick, Emmons, & Larson, 2001)
  – Related to relationship quality, generosity, and compassion (McCullough et al, 2002; Wood et al, 2010)

• **ACORN Scale** (Minami, Brown, McCulloch, & Bolstrom, 2010)
  – A short measure of global distress
  – Approximately 10-15 of 100 items are used interchangeably due to their high internal consistency
  – Mean item scores are reported so scores are independent of the number of items employed
  – 14-item version formerly adopted by Western Psychological and Counseling Services was used
Method

Procedure

• Volunteers were solicited from students at George Fox University, Roberts Wesleyan College, University of Tennessee at Chattanooga, and Richmont Graduate University,

• Participants completed an internet survey provided using Survey Monkey

• No personally identifying data were gathered.

• Participants may have received academic credit for research participation in this or alternative studies in their respective institutions
Results: Stage 1

The first stage of the factor analysis involved an exploratory analysis to identify all factors with eigenvalues greater than 1.0.

A total of 18 factors were identified.

Eigenvalues in decreasing magnitude were: 25.55, 6.60, 4.94, 3.47, 2.53, 2.48, 1.85, 1.76, 1.66, 1.54, 1.38, 1.29, 1.15, 1.12, 1.05, 1.03, and 1.01

An Oblimin rotation was unsuccessful after 25 iterations.

A scree plot suggested a dominant initial factor and up to 4 or 5 additional factors.
Results

Scree Plot

Eigenvalue

Component Number
Results: Stage 2A

• The second step was to explore forced 2, 3, 4, 5 and 6 factor solutions.
  – A forced 2-factor solution yielded 30 items that loaded on the first factor above 0.40 and differed from loadings on factor 2 by at least 0.20
  – An additional 17 items loaded on factor 2
  – The remaining 36 items did not load on either of these factors (1 item, RGS-3, loaded about equally on both factors)
  – The factors correlated at -0.23
Results: Stage 2B

• The second step was to explore forced 2, 3, 4, 5 and 6 factor solutions.
  – A forced 3-factor solution yielded 29 items that loaded on the first factor above 0.40 and differed from loadings on factor 2 by at least 0.20
  – 21 items loaded on factor 2
  – An additional 6 items loaded on factor 3
  – The remaining 27 items did not load on either of these factors (7 items loaded about equally on 2 or more factors)
  – The factors correlated at -0.33, 0.07 and 0.03 for F-1/F-2, F-1/F-3, and F-2/F-3 respectively
Results: Stage 2C

• The second step was to explore forced 2, 3, 4, 5 and 6 factor solutions.
  – A **forced 4-factor solution** yielded 29 items that loaded on the first factor above 0.40 and differed from loadings on factor 2 by at least 0.20
  – 18 items loaded on factor 2
  – 6 items loaded on factor 3
  – An additional 7 items loaded on factor 4
  – The remaining 23 items did not load on any of these factors (4 items loaded about equally on 2 or more factors)
  – The factors correlated at -0.30, 0.06, -0.23, 0.01, 0.16 and 0.03 for F-1/F-2, F-1/F-3, F-1/F4, F-2/F-3, F-2/F-4, and F-3/F-4 respectively
Results: Stage 2D

- The second step was to explore forced 2, 3, 4, 5 and 6 factor solutions.
  - A forced 5-factor solution yielded 29 items that loaded on the first factor above 0.40 and differed from loadings on factor 2 by at least 0.20
  - 13 items loaded on Factor 2
  - 7 items loaded on Factor 3
  - 7 items loaded on factor 4 (4 in a negative direction)
  - An additional 9 items loaded on Factor 5 (1 in a negative direction)
  - The remaining 18 items did not load on any of these factors OR loaded on two factors about equally (3 items)
  - The factors correlated at -0.37, -0.02, -0.21, -0.12, -0.09, 0.15, 0.28, 0.05, 0.10, and 0.09 for F-1/F-2, F-1/F-3, F-1/F-4, F-1/F-5, F-2/F-3, F-2/F-4, F-2/F-5, and F-3/F-4, F-3/F-5, and F-5/F-5 respectively
Results: Stage 2E

• The second step was to explore forced 2, 3, 4, 5 and 6 factor solutions.
  – A forced 6-factor solution yielded 29 items that loaded on the first factor above 0.40 and differed from loadings on factor 2 by at least 0.20
  – 13 items loaded on Factor 2
  – 7 items loaded on Factor 3
  – 7 items loaded on Factor 4 (4 in a negative direction)
  – 7 items loaded on Factor 5 (1 in a negative direction)
  – An additional 1 items loaded on Factor 6
  – The remaining 19 items did not load on any of these factors (9 items loaded about equally on 2 or more factors)
  – The factors correlated at -0.37, -0.02, -0.21, -0.12, -0.09, 0.15, 0.28, 0.05, 0.10, and 0.09 for F-1/F-2, F-1/F-3, F-1/F4, F-1/F5, F-2/F-3, F-2/F-4, F-2/F-5, and F-3/F-4, F-3/F-5, and F-4/F-5 respectively
## Results: Forced Factor Solutions

<table>
<thead>
<tr>
<th>Forced</th>
<th>F-1</th>
<th>F-2</th>
<th>F-3</th>
<th>F-4</th>
<th>F-5</th>
<th>F-6</th>
<th>Residual Items</th>
<th>Double Loading</th>
<th>Total Variance</th>
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<tbody>
<tr>
<td>2</td>
<td>30</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36</td>
<td>1</td>
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<td>3</td>
<td>29</td>
<td>21</td>
<td>6</td>
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<td></td>
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<td></td>
<td>27</td>
<td>7</td>
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<tr>
<td>4</td>
<td>29</td>
<td>18</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>29</td>
<td>13</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td></td>
<td>18</td>
<td>3</td>
<td>49.5</td>
</tr>
<tr>
<td>6</td>
<td>29</td>
<td>13</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>19</td>
<td>9</td>
<td>52.5</td>
</tr>
</tbody>
</table>
## Factor Correlations

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 2</td>
<td><strong>-0.37</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Factor 3</td>
<td>-0.02</td>
<td>0.09</td>
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<tr>
<td>Factor 4</td>
<td><strong>-0.21</strong></td>
<td>0.15</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Factor 5</td>
<td>-0.12</td>
<td><strong>0.28</strong></td>
<td>0.10</td>
<td>0.09</td>
</tr>
</tbody>
</table>
Discussion

• We conclude that the three grace measures tap into as many as five factors
• These results suggest that grace may be multi-dimensional
• At minimum, the three grace measures include more than a single dimension, and perhaps as many as five meaningful dimensions
Discussion

• The first factor is dominated by items from the TAGS
• The second factor is dominated by items from the RGS—in one factor solution only RGS items loaded on this factor
• The remaining factors were loaded on predominantly by GS items

The three grace scales appear to measure somewhat different constructs that are minimally related.
Discussion

• Correlation data suggest that the factors identified are minimally related.

• This raises questions about whether they are tapping into a common construct

• It appears that the combined item pool may be measuring as many as five distinct constructs
Conclusion

Questions & Audience Discussion


Selected References


Selected References

