Developmental Trajectories of Youth Positive Attributes and the Role of Scouting: A Five-wave Longitudinal Study

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Positive Youth Development (PYD) (Lerner, Lerner, Bowers, & Geldhof, 2015)

- a strength-based approach
- align individual strengths with key ecological developmental assets
  - individual ↔ context
  - mutually beneficial
- key contexts in youth ecology
  - families
  - schools
  - peer groups
  - out of school youth development programs
Youth Development Programs

• Youth Development programs (YD)
  – develop positive attributes in young people (e.g., Eccles, & Gootman, 2002)
    ✓ character virtues
    ✓ prosocial behaviors
    ✓ positive civic actions
  – promote PYD through YD programs (e.g., Lerner, 2004; Vandell et al., 2015)
    ✓ opportunities for sustained, caring and supportive relationships with adults
    ✓ the development of life-skills through program activities
    ✓ opportunities to contribute to, and assume a leadership role in, valued family, school, or community activities
Boy Scouts of America

• Boy Scouts of America (BSA)
  – values-based
  – build character
  – responsibilities of participating citizenship
  – skill-building activities
  – skill application in different contexts
  – a developmental perspective
BSA and PYD

Cub Scouts

Boy Scouts

TIGERS  WOLF  BEAR  WEBELOS

1st Grade  5th Grade  12th Grade

Institute for Applied Research in Youth Development
I, promise to do my **BEST**
To do my **DUTY** to **God** and my country,
To **HELP** other people,
and to **OBEY** the **Law of the Pack.**

**Law of the Pack**
The Cub Scout follows Akela
The Cub Scout helps the pack go
The pack helps the Cub Scout grow
The Cub Scout gives goodwill
Cub Scouting

Methods of Cub Scouting
1. Living the ideals
2. Belonging to a Den
3. Using advancement
4. Involving family and home
5. Participating in activities
6. Serving home and neighborhood
7. Wearing the uniform
8. Making character connections

Cub Scouting Core Values
1. Citizenship
2. Compassion
3. Cooperation
4. Courage
5. Faith
6. Health and fitness
7. Honesty
8. Perseverance
9. Positive attitude
10. Resourcefulness
11. Respect
12. Responsibility
Boy Scouting

Boy Scout Motto: Be Prepared

Boy Scout Oath

On my honor I will do my best
To do my duty to God and my country
and to obey the Scout Law;
To help other people at all times;
To keep myself physically strong,
mentally awake, and morally straight.

Boy Scout Law

A Scout is:
- Trustworthy
- Loyal
- Helpful
- Friendly
- Courteous
- Kind
- Obedient
- Cheerful
- Thrifty
- Brave
- Clean
- Reverent
Prior research on BSA

- BSA programs help to enhance youth participants’
  - character development
  - well-being
  - values
  - relationships
  - decision-making skills
  - commitment to achieving goals

(see Harris Interactive, 2003; Jang et al., 2012; Louis Harris & Associates, 1998; Polson et al., 2013)
Research Gap

• A relative absence of *developmental research* about how character-related attributes develop as youth participate in YD programs, such as BSA.

• A particular absence of such research during childhood and early adolescents.

(See discussion in Lerner & Callina, 2014)
Current Study

- 2,470 youth between 6 and 12 years of age across the greater Philadelphia metropolitan area
- The analytical sample for this study
  - 1,390 Scouts ($M = 8.59$ years, $SD = 1.29$ years)
  - 325 non-Scout boys ($M = 9.06$ years, $SD = 1.43$ years)
- Five waves of longitudinal data collected across two years (~6 months between adjacent waves)
- Self-ratings on a 1-5 Likert scale
### Current Study

**Character attributes**
- Obedience
- Reverence
- Cheerfulness
- Kindness
- Thriftiness
- Trustworthiness
- Helpfulness

**PYD-related attributes**
- Intentional self-regulation
- Hopeful future expectations
- School performance

<table>
<thead>
<tr>
<th>Is this like you?</th>
<th>Not at all like me</th>
<th>A little bit like me</th>
<th>Kind of like me</th>
<th>A lot like me</th>
<th>Exactly like me</th>
<th>I don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I act the way I am supposed to.</td>
<td>Not at all</td>
<td>A little bit</td>
<td>Kind of</td>
<td>A lot</td>
<td>Exactly</td>
<td>I don’t know</td>
</tr>
<tr>
<td>2. I get into trouble.</td>
<td>Not at all</td>
<td>A little bit</td>
<td>Kind of</td>
<td>A lot</td>
<td>Exactly</td>
<td>I don’t know</td>
</tr>
<tr>
<td>3. I do what my parents say.</td>
<td>Not at all</td>
<td>A little bit</td>
<td>Kind of</td>
<td>A lot</td>
<td>Exactly</td>
<td>I don’t know</td>
</tr>
<tr>
<td>4. I do what my teachers say.</td>
<td>Not at all</td>
<td>A little bit</td>
<td>Kind of</td>
<td>A lot</td>
<td>Exactly</td>
<td>I don’t know</td>
</tr>
</tbody>
</table>
Current Study

- Latent growth-curve analyses (20 imputed data sets)
- Controlling for age differences at each wave
- A two-group model: examine Scouts and non-Scouts’ data simultaneously
Results

- Good model fit.

<table>
<thead>
<tr>
<th></th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>SRMR</th>
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<tbody>
<tr>
<td>Cheerfulness</td>
<td>.949</td>
<td>.949</td>
<td>.016</td>
<td>.032</td>
</tr>
<tr>
<td>Hopeful future</td>
<td>.947</td>
<td>.949</td>
<td>.012</td>
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<tr>
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<td>.980</td>
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<td>Obedience</td>
<td>.906</td>
<td>.904</td>
<td>.022</td>
<td>.035</td>
</tr>
<tr>
<td>Reverence</td>
<td>.931</td>
<td>.930</td>
<td>.030</td>
<td>.034</td>
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<tr>
<td>School performance</td>
<td>.941</td>
<td>.940</td>
<td>.021</td>
<td>.036</td>
</tr>
<tr>
<td>SOC</td>
<td>.915</td>
<td>.914</td>
<td>.019</td>
<td>.035</td>
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<tr>
<td>Thriftiness</td>
<td>.930</td>
<td>.929</td>
<td>.018</td>
<td>.029</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>.967</td>
<td>.972</td>
<td>.010</td>
<td>.029</td>
</tr>
</tbody>
</table>
Results

- Negative age effects within wave
- Significant for
  - Helpfulness
  - Reverence
  - School performance
  - Thriftiness

<table>
<thead>
<tr>
<th></th>
<th>Age effect</th>
<th>B2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheerfulness</td>
<td></td>
<td>-.001</td>
<td>.911</td>
</tr>
<tr>
<td>Hopeful future</td>
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<td>.002</td>
<td>.766</td>
</tr>
<tr>
<td>Helpfulness</td>
<td></td>
<td>-.017</td>
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<td>Kindness</td>
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<tr>
<td>Obedience</td>
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<td>.001</td>
<td>.931</td>
</tr>
<tr>
<td>Reverence</td>
<td></td>
<td>-.035</td>
<td>.017</td>
</tr>
<tr>
<td>School performance</td>
<td></td>
<td>-.035</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>SOC</td>
<td></td>
<td>-.001</td>
<td>.902</td>
</tr>
<tr>
<td>Thriftiness</td>
<td></td>
<td>-.023</td>
<td>.011</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td></td>
<td>-.008</td>
<td>.338</td>
</tr>
</tbody>
</table>
Results

- Cheerfulness of Scouts and non-Scout boys
  - Equivalent baseline ratings
  - Significant increase for Scouts and stable trend for non-Scout boys

<table>
<thead>
<tr>
<th>Cheerfulness</th>
<th>Intercept</th>
<th>Slope</th>
<th>p</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSA (N = 1398)</td>
<td>4.073</td>
<td>.021</td>
<td>.024</td>
<td>No sig. diff.</td>
</tr>
<tr>
<td>NBSA (N = 325)</td>
<td>4.084</td>
<td>-.031</td>
<td>.117</td>
<td>Sig. diff.</td>
</tr>
</tbody>
</table>
### Results

- Hopeful future expectation of Scouts and non-Scout boys
  - Equivalent baseline ratings
  - Equivalent rate of change across the waves

<table>
<thead>
<tr>
<th>Hopeful future expectation</th>
<th>Intercept</th>
<th>Slope</th>
<th>Compare</th>
<th>Intercept</th>
<th>Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSA (N = 1398)</td>
<td>4.482</td>
<td>.029</td>
<td>&lt;.0001</td>
<td>No sig. diff.</td>
<td>No sig. diff.</td>
</tr>
<tr>
<td>NBSA (N = 325)</td>
<td>4.524</td>
<td>.006</td>
<td>.637</td>
<td></td>
<td></td>
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</tbody>
</table>

![Graph showing comparison of BSA and NBSA](image)
Results

- Helpfulness of Scouts and non-Scout boys
  - Equivalent baseline ratings
  - Significant increase for Scouts and stable trend for non-Scout boys

<table>
<thead>
<tr>
<th>Helpfulness</th>
<th>Intercept</th>
<th>Slope</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSA (N = 1398)</td>
<td>4.233</td>
<td>.019</td>
<td>.031</td>
</tr>
<tr>
<td>NBSA (N = 325)</td>
<td>4.302</td>
<td>-.015</td>
<td>.313</td>
</tr>
</tbody>
</table>

No sig. diff.  Sig. diff.
Results

- Kindness of Scouts and non-Scout boys
  - Equivalent baseline ratings
  - Equivalent rate of increase across the waves

<table>
<thead>
<tr>
<th>Kindness</th>
<th>Intercept</th>
<th>Slope</th>
<th>Compare</th>
<th>Intercept</th>
<th>Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bo</td>
<td>B1</td>
<td>p</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSA (N = 1398)</td>
<td>4.435</td>
<td>.025</td>
<td>.008</td>
<td>No sig. diff.</td>
<td>No sig. diff.</td>
</tr>
<tr>
<td>NBSA (N = 325)</td>
<td>4.432</td>
<td>.002</td>
<td>.902</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Results

- **Obedience of Scouts and non-Scout boys**
  - Baseline ratings: non-Scout boys > Scouts
  - Significant increase for Scouts and stable trend for non-Scout boys

<table>
<thead>
<tr>
<th>Obedience</th>
<th>Intercept</th>
<th>Slope</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B0</td>
<td>B1</td>
<td>p</td>
</tr>
<tr>
<td>BSA (N = 1398)</td>
<td>3.909</td>
<td>.040</td>
<td>&lt;.0001</td>
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<tr>
<td>NBSA (N = 325)</td>
<td>4.052</td>
<td>-.004</td>
<td>.811</td>
</tr>
</tbody>
</table>
Results

- Reverence of Scouts and non-Scout boys
  - Baseline ratings: non-Scout boys > Scouts
  - Stable for Scouts and significant decrease for non-Scout boys

<table>
<thead>
<tr>
<th>Reverence</th>
<th>Intercept</th>
<th>Slope</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B0</td>
<td>B1</td>
<td>p</td>
</tr>
<tr>
<td>BSA (N = 1398)</td>
<td>4.014</td>
<td>.009</td>
<td>.472</td>
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<tr>
<td>NBSA (N = 325)</td>
<td>4.296</td>
<td>-.051</td>
<td>.033</td>
</tr>
</tbody>
</table>
### Results

- School performance of Scouts and non-Scout boys
  - Equivalent baseline ratings
  - Equivalent stable trend across the waves

<table>
<thead>
<tr>
<th>School performance</th>
<th>Intercept</th>
<th>Slope (p)</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSA (N = 1398)</td>
<td>4.182</td>
<td>0.011</td>
<td>0.145</td>
</tr>
<tr>
<td></td>
<td>No sig. diff.</td>
<td>No sig. diff.</td>
<td></td>
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<tr>
<td>NBSA (N = 325)</td>
<td>4.248</td>
<td>-0.013</td>
<td>0.308</td>
</tr>
<tr>
<td></td>
<td>No sig. diff.</td>
<td>No sig. diff.</td>
<td></td>
</tr>
</tbody>
</table>

![Graph showing trends](chart.png)
Results

- Intentional self-regulation of Scouts and non-Scout boys
- Equivalent baseline ratings
- Equivalent stable trend across the waves

<table>
<thead>
<tr>
<th>Intentional self-regulation</th>
<th>Intercept</th>
<th>Slope</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSA (N = 1398)</td>
<td>3.844</td>
<td>.009</td>
<td>.267</td>
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<tr>
<td>NBSA (N = 325)</td>
<td>3.836</td>
<td>.005</td>
<td>.721</td>
</tr>
</tbody>
</table>
## Results

- Thriftiness of Scouts and non-Scout boys
  - Equivalent baseline ratings
  - Equivalent stable trend across the waves

<table>
<thead>
<tr>
<th>Thriftiness</th>
<th>Intercept</th>
<th>Slope</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B0</td>
<td>B1</td>
<td>p</td>
</tr>
<tr>
<td>BSA (N = 1398)</td>
<td>4.051</td>
<td>.011</td>
<td>.284</td>
</tr>
<tr>
<td>NBSA (N = 325)</td>
<td>4.089</td>
<td>.004</td>
<td>.820</td>
</tr>
</tbody>
</table>
Results

- Trustworthiness of Scouts and non-Scout boys
  - Equivalent baseline ratings
  - Equivalent rate of change across the waves

<table>
<thead>
<tr>
<th>Trustworthiness</th>
<th>Intercept</th>
<th>Slope</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSA (N = 1398)</td>
<td>4.332</td>
<td>.032</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>NBSA (N = 325)</td>
<td>4.379</td>
<td>.009</td>
<td>.526</td>
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</table>
Summary of Results

• Negative age effects within wave
  – helpfulness, reverence, school performance, trustworthiness
• Moderate to high self-ratings in general
• Scouts’ lower baseline ratings
  – obedience and reverence
• Scouts’ significant increases
  – cheerfulness, helpfulness, hopeful future expectation, kindness, obedience, and trustworthiness
• Non-Scout boys’ significant decrease
  – reverence
Discussion

• Youth positive attributes as individual strengths
• BSA as a key YD program that provide important ecological assets
• Complex time scales during development, for example
  – Age
  – Program experience
• The use of a longitudinal design to reveal developmental change
• Valuable baseline data for charting subsequent changes
Discussion

• Challenges for measurement development
  – self-rating: cognitive maturation, “better than average”
  – a narrow range of rating scale
  – need for multitrait-multimethod approach
  – triangulate quantitative and qualitative findings

• Effect size
  – small or big?
  – practical importance

• Complex program effects
  – diversity, duration, intensity
Discussion

After all, we have started a journey to character development.
Acknowledgement

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Edmond P. Bowers    Shaobing Su
Daniel J. Warren    Mary H. Buckingham
Kaitlyn A. Ferris    Caroline Stack
Erin S. Gelgoot

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