Investigating Diversity in Early Adolescence: The IDEA Project

Youth-Nex Works-in-progress

March 26, 2015
Separate and Unequal

Does Integration Still Matter in Public Schools?

July 15, 2014, 9:41 pm ET by Sarah Childress
School Diversity

• Attending diverse school associated with:
  – Increased critical thinking skills
  – Reduced willingness to accept stereotypes
  – Greater ability to communicate with others
  – Better academic achievement for students of color
  – Better long-term educational and career outcomes for students of color
  – Increased likelihood of seeking diversity after HS

• School segregation associated with:
  – Less experienced, less qualified teachers
  – Higher teacher turnover
  – Inadequate facilities & learning materials
  – Less challenging curricula; fewer advanced courses
  – Lower educational achievement & attainment
  – Higher dropout rates
  – Harsher discipline; higher expulsion rates

(Orfield & Frankenberg, 2014)
EXPOSURE TO OTHER RACES AT SCHOOL, 2011-2012

PBS Frontline
Source: Civil Rights Project at UCLA
Benefits of School Diversity: Diversity Hypothesis

Homophily restricts:
- The spread of information
- Sharing of resources
- Opportunities for innovation

You might think increased discussion would bring us politically closer but this map of political blogs in America shows otherwise.

Online social networks appear to be strongly homophilous and polarized.
Challenges of School Diversity: Congruence Hypothesis

Benner & Graham, 2007; Benner & Wang, 2014; Goldsmith, 2004; Linn & Welner, 2007; Seaton & Yip, 2009
School Diversity, Racial Congruence

• For students of color, attending a diverse school is also associated with:
  – Negative perceptions of peer racial climate
  – Increased racism (Benner & Graham, 2013; Seaton & Yip, 2009)

• While the presence of same-race peers is positively associated with:
  – School racial climate
  – Social & Academic outcomes (Benner & Graham, 2009; 2013)
Social Experience of School Diversity

- School
- Classroom
- Peer Group
- Youth

“Why Are All the Black Kids Sitting Together in the Cafeteria?”

And Other Conversations About Race

BEVERLY DANIEL TATUM, PH.D.
Correlates of cross-race friendships
- Positive cross-ethnic attitudes, less intergroup anxiety (Killen, Rutland, & Ruck, 2011)
- More positive social adjustment & behavior (Kawabata & Crick, 2008; Lease & Blake, 2005)
- Lower perceived vulnerability (Graham, et al., 2014)
- Academic orientation for youth of color (Hamm, Brown, & Heck, 2005)

Correlates of same-race friendships
- Ethnic identity exploration (Yip, Seaton, & Sellers, 2010)
- Positive racial regard (Graham, Munniksma, & Juvonen, 2014)
- Stronger sense of belonging (Kiang & Fuligni, 2009)
- Black youth perceived as “cool” by peers (Wilson & Rodkin, 2013)
Peer Group Diversity

Higher diversity
- May promote positive academic experiences and outcomes

Higher homophily
- May promote positive socioemotional outcomes and perceptions of climate
Examining Racial/Ethnic Group Differences

- In the context of the U.S.
  - Variation in social position, experience with discrimination & marginalization, content of stereotypes, etc.
  - Race/ethnicity as a marker of position in stratification system (Benner & Crosnoe, 2011)

García Coll, et al., 1996
School Diversity & Peer Networks

• In the context of diverse schools
  – Peer group diversity may enhance positive academic outcomes but exacerbate negative socioemotional outcomes and perceptions of climate
  – Peer group homophily may mitigate against negative socioemotional outcomes and perceived racial climate
Current Inquiries

• Study 1. Diverse Outcomes of School Diversity for Boys of Color
  – Analysis of Add Health Data

• Study 2. Benefits and Challenges of Ethnic Diversity in Middle Schools: Mediating Role of Peer Social Networks
  – W.T. Grant Scholars Project
Study 1. Interactions Between School and Peer Ethnic Diversity: Implications for Black Male Youths’ Network-level Perceptions of School
Study 1

• How does peer group diversity relate to academic and social outcomes for African American adolescent boys?

• Does peer group diversity moderate the association between school diversity and academic/social outcomes?
Sample & Diversity Indicators

• Add Health: 1,818 Black and White Males in 108 schools (social network sample)

• Peer-group level indicators:
  – Peer group racial/ethnic diversity

• School-level Indicators:
  – School racial/ethnic diversity
  – Proportion of Black students
Quantifying Diversity

\[ D = 1 - \sum_{k} \left( \frac{n_k}{N} \right)^2 \]

Simpson, 1949; Budescu & Budescu, 2012
Peer Group Diversity by Race

Black Males

- High: 28%
- Med.: 29%
- Low: 14%
- None: 29%

Mean D = .29 (.23)

White Males

- High: 18%
- Med.: 22%
- Low: 22%
- None: 38%

Mean D = .22 (.21)
School Diversity Indicators

• School diversity index:
  – Mean D = .32 (.21), Range: 0 - .80
    • Black males: Mean D = .36 (.21)
    • White males: Mean D = .30 (.21)

• Proportion of Black students:
  – Mean = .25 (.30), Range: 0 -1
    • Black males: Mean = .60 (.31)
    • White males: Mean = .12 (.16)
School Diversity & Boys of Color

• Outcomes: Peer network & Individual
  – GPA, Add Health Picture Vocab. Test (indiv. only)
  – Student prejudice, Trouble with teachers, School belonging

• Covariates:
  – Grade, parent education, network size (individual-level),
  – Segregation, parent education, school quality (school-level)
School Diversity & Boys of Color

• Analyses
  – Hierarchical Linear Models (HLM)
    • Peer groups nested in schools
  – L1 interactions between race (Black = 1) and peer diversity
  – Cross-level interactions between race and school diversity, proportion Black
  – Three-way interactions between race, peer diversity, and school diversity/proportion Black
RESULTS
Results: Peer Diversity Effects

Trouble with Teachers

- White, $b = .31^{**}$
- Black, $b = -.20^{**}$

Grade Point Average

- White, $b = -.18^{**}$
- Black, $b = .16^{**}$
Results: Peer Diversity Effects

• Findings were similar at the individual level; greater peer group diversity associated with:
  – Higher scores on the Add Health vocab. test for Black male teens; opposite pattern for White males
  – Less trouble with teachers for Black boys; opposite pattern for White boys
Results: Peer Diversity Effects

Mental Health Symptoms

Student Prejudice

- White, $b = .08$, n.s.
- Black, $b = .33^\ast$

- White, $b = -.25^{**}$
- Black, $b = .86^{***}$
Results: Peer Diversity Effects

• Findings were similar at the individual level; greater peer group diversity associated with:
  – Higher perceptions of prejudice among the student body for Black males; not significant for White males
Study 2. The Benefits and Challenges of Peer Group Diversity in Middle School: Preliminary Findings from Project REAL
Ethnic Diversity in Middle Schools: Core Aims

• How do peer group ethnic heterogeneity and stability relate to youth’s psychosocial and academic functioning (e.g., ethnic identity, cultural flexibility, school belonging)?

• What features of middle schools (e.g., diversity climate, resource organization) support or deter the presence of ethnically diverse peer groups?

• What kinds of ethnicity-related norms are expressed in ethnically diverse and homogeneous peer groups, and how do they affect peer interaction, student belongingness, and the school diversity climate?
Figure 1. Conceptual Model of the Relations between the Ethnic Context of Schools, the Ethnic Context of Peer Groups, and Group and Individual Outcomes
Multiphase, Mixed-Methods Design
<table>
<thead>
<tr>
<th>Category</th>
<th>Project REAL (subsample)</th>
<th>MSDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>2,453 (444)</td>
<td>6,012</td>
</tr>
<tr>
<td>Number of schools</td>
<td>36 (8)</td>
<td>26</td>
</tr>
<tr>
<td>Geographic Regions</td>
<td>Appalachian, Deep Southern, Far Western, Midwestern, Northern Plains, Southeastern, Southwestern</td>
<td>Western (Southern &amp; Northern California)</td>
</tr>
<tr>
<td>Location Type</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>Ethnic Groups</td>
<td>26% (31%) African American, 6% (21%) Latino, 4% (17%) Native American, 59% (30%) White, 5% Other ethnic group</td>
<td>12% African American, 19% Asian/Pacific Islander, 32% Latino, 14% Multiethnic, 20% White, 4% Other ethnic group</td>
</tr>
<tr>
<td>Waves of data</td>
<td>Spring Grade 5; Fall/Spring Grade 6</td>
<td>Fall/Spring Grade 6; Spring Grade 7; Spring Grade 8</td>
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<tr>
<td>Primary Focus of Outcome Measures</td>
<td>Academic (e.g., school belonging, peer achievement norms) and Social (e.g., competence, intervening in bullying</td>
<td>Academic (e.g., school belonging, engagement); Psychosocial (e.g., identity complexity; ethnic identity; mental health); Racial/Ethnic Diversity (e.g., intergroup attitudes, school racial climate)</td>
</tr>
<tr>
<td>Social network data</td>
<td>Social Cognitive Maps</td>
<td>Self-reported Friendship Groups</td>
</tr>
<tr>
<td>Mentor</td>
<td>Jill Hamm, Associate Professor of Educational Psychology; UNC School Of Education</td>
<td>Sandra Graham, Professor Of Education; Presidential Chair in Education &amp; Diversity; UCLA</td>
</tr>
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</table>
# Project REAL: Schools

<table>
<thead>
<tr>
<th>School (n)</th>
<th>American Indian (%)</th>
<th>Black (%)</th>
<th>Latino (%)</th>
<th>White (%)</th>
<th>Other (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (n = 47)</td>
<td>81</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>2 (69)</td>
<td>81</td>
<td>0</td>
<td>0</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>3 (90)</td>
<td>1</td>
<td>49</td>
<td>0</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>4 (110)</td>
<td>5</td>
<td>41</td>
<td>1</td>
<td>52</td>
<td>2</td>
</tr>
<tr>
<td>5 (77)</td>
<td>0</td>
<td>1</td>
<td>66</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>6 (46)</td>
<td>2</td>
<td>4</td>
<td>37</td>
<td>54</td>
<td>2</td>
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<td>7 (56)</td>
<td>0</td>
<td>0</td>
<td>95</td>
<td>5</td>
<td>0</td>
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<tr>
<td>8 (123)</td>
<td>2</td>
<td>81</td>
<td>0</td>
<td>11</td>
<td>5</td>
</tr>
</tbody>
</table>
Peer Group Diversity Indices

African American

- None
- Low
- Mod/High

American Indian

- None
- Low
- Mod/High

Latino

- None
- Low
- Mod/High

White

- None
- Low
- Mod/High
Project REAL: Peer Group Diversity
Project REAL: Measures

• Peer Networks:
  – Social Cognitive Mapping Procedure
  – Peer diversity index

• Outcomes:
  – School belonging; school valuing; emotional risk of participation; peer protective ecology; peer norms of support
  – Teacher ratings of interpersonal competence, aggression, internalizing
Project REAL: Analytic Plan

• HLM
  – Relation between peer group diversity and individual (or group-level) norms
    • Peer diversity index as predictor of individual (or group-level) outcomes, conditioned on student-level covariates
    • Concurrent & longitudinal models (T2 & T3)
  – Variation by ethnic group
    • Cross-level interactions between peer group diversity and student ethnicity (White youth as reference group)
RESULTS
Project REAL: Preliminary Findings @ Wave 2

• In general, peer diversity effects were moderated by ethnic group membership (vs. White youth)
  
• American Indian youth:
  – Higher peer div. → higher teacher ratings on “affiliative” behavior, social competence; lower ratings on aggression

• Latino youth
  – Higher peer div. → less likely to intervene when peers are bullied

• Black youth
  – n.s.
American Indian Youth

Teacher-rated Aggression

Peer Group Diversity

Teacher-rated Affiliativeness

Peer Group Diversity

White, $b = 1.28$, $p = .06$

White, $b = -1.17^*$
Summary

• In general, peer diversity effects for Black male teens mirrored findings from school diversity literature
  – Beneficial for academic indicators
  – Challenging for socioemotional indicators

• No real literature base for American Indian youth; however, emergent patterns show some support for benefits of diversity for socioemotional outcomes
Discussion

• Observed group differences
  – May be shaped by peer diversity norms
    • Are you aligned with peer expectations?
  – School diversity climate, adult perceptions/treatment may also play a role

• Additional work needed to better understand role of peer culture, school norms
  – Both quantitative and qualitative approaches

• Need for a deeper understanding of processes and mechanisms linking contextual diversity to outcomes
Questions

• What other factors to consider in quant models?
  – e.g., potential mediators; cross-lagged models to assess direction of effects; subgroup analysis, etc.

• Challenges to address in making meaning of results
  – Selection vs. socialization; school diversity constraints

• Identification of processes/mechanisms:
  – How to capitalize on existing quant data; what to consider for next steps in mixed-methods project
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Contact Information:
jlwilliams@virginia.edu