A Little Help from Their Friends? How Social Factors Impact College Students' Sense of Belonging at a Large Public University

A Quantitative Survey Study

Joseph A. Anistranski & B. Bradford Brown
University of Wisconsin-Madison

Hsun-yu Chan
Texas A&M Commerce

anistranski@wisc.edu
http://bit.ly/2ycVgRx
# The problem

<table>
<thead>
<tr>
<th>Attrition/Retention</th>
<th>Sense of Belonging (SB)</th>
<th>“Underlying” Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearly 70% of high-school graduates attend college</td>
<td>Basic, <em>universal</em> human need</td>
<td>Though social in nature, need for a more comprehensive/nuanced exploration</td>
</tr>
<tr>
<td><strong>Completion</strong> rate of Bachelor’s degrees in 6 years &lt; 60%</td>
<td>Plays key <em>role in persistence and degree completion</em></td>
<td>What are the respective roles of specific developmental factors when controlling for individual-level factors?</td>
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<tr>
<td>Successful transitions to adulthood depend on college completion more than at any point in history</td>
<td><strong>Understudied</strong> in college</td>
<td></td>
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<tr>
<td></td>
<td><em>Social</em> construct, <strong>but</strong> increasingly <em>multifactorial</em> in college</td>
<td></td>
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</tbody>
</table>

*Underlying* Factors

Though social in nature, need for a more comprehensive/nuanced exploration

What are the respective roles of specific developmental factors when controlling for individual-level factors?
### Foundations

<table>
<thead>
<tr>
<th>Individual Factors</th>
<th>Adjustment to College</th>
<th>Friendships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some individuals may be <strong>predisposed to belonging</strong></td>
<td>Social and academic <strong>adjustment significantly associated with completion</strong></td>
<td>Studies often include general measures of social adjustment</td>
</tr>
<tr>
<td>Others may experience <strong>challenges based on race, gender</strong></td>
<td>Likely to influence students’ SB, as well</td>
<td><strong>Overlook</strong> more <strong>specific features</strong> of social relationships</td>
</tr>
<tr>
<td>Gap: <strong>research</strong> on belonging often <strong>not nuanced enough</strong> at individual level</td>
<td>Past focus primarily on academic outcomes</td>
<td>Current study <strong>focuses on friendship closeness</strong> at the dyadic and network level</td>
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</table>
Research Questions

Adjustment and Friends

Controlling for individual factors, what are the contributions of social adjustment, academic adjustment, and friendship closeness (dyadic and network)?

Moderators

Will minority group membership moderate social adjustment’s relation to SB?
Will best friendship closeness moderate network closeness’s relation to SB?
Hypotheses

Main Effects

H1: Controlling for other individual-level factors and antecedents to SB, minority group membership will be negatively associated with SB.

H2: Social and academic adjustment to college will be positively associated with SB when controlling for individual-level factors and antecedents to SB.

H3: Friendship network closeness and best friendship closeness will be associated with SB when controlling for other factors.

Moderators

H4: Majority/minority group membership will moderate the relationship between social adjustment and SB, such that this relationship will be stronger for members of the majority group.

H5: Best friendship closeness will moderate the association between friendship network closeness and SB. The association between friendship network closeness and SB is expected to be stronger for students with relatively low best-friendship closeness.
Methods

- **500** undergraduates ($M = 20.08$ years)
- **Self-report** questionnaire
- 82% White, 1% Black/African American, 2% Latino/a, 5% Asian American, 4% Asian/Pacific Islander, 6% multiracial; 73% **female**
- Measured psychological **SB, personality traits, adjustment to college, friendship closeness**, antecedents to SB, demographics

- Factor analysis of SOBI: **Unifactorial**
- **Variance inflation test** for social adjustment
- **Correlation** matrices
- **5-step hierarchical regression** starting at individual level
  - Added adjustment, friendship closeness, and moderators systematically to the initial model
Measurement

- **Sense of Belonging Instrument-Psychological** (Hagerty & Patusky, 1995; $\alpha=0.94$; “I generally feel that people accept me.”)
- **Sense of Belonging Instrument-Antecedents** (Hagerty & Patusky, 1995; $\alpha=0.86$; “I am working on fitting in better with those around me.”)
- **Big Five** Inventory-10 (Rammstedt & John, 2007; “I see myself as someone who is reserved.”)
- **SACQ Social** (Baker & Siryk, 1989; $\alpha=0.92$; “I am meeting as many people as I would like at college.”)
- **SACQ Academic** (Baker & Siryk, 1989; $\alpha=0.87$; “I am finding academic work at college difficult.”)
- **Friendship Qualities Scale** (Bukowski, Hoza, & Boivin, 1994; Network $\alpha=0.85$, Best $\alpha=0.92$; “I think about my friend even when my friend is not around.”)
- **Race/ethnicity** (select as many as apply from a list with a write-in option; grouped into majority/minority groups based on limitations of sample)
Sense of Belonging

Individual-Level Factors (Race/ethnicity, Gender, Year, Personality, Antecedents to SB)

- Academic Adjustment
  - Model 2, H2

- Social Adjustment
  - Model 3, H3

- Race/Ethnicity
  - Model 4, H4

- Total Close Friends, Shared Network
  - Model 5, H5

- Best Friend Closeness
  - Model 5, H5

- Network Closeness
  - Model 5, H5

Model 1, H1
Model 2, H2
Model 3, H3
Model 4, H4
Model 5, H5
Overview of Regression Models

Model 1: Individual-level model: **37% of variance in SB**

Model 2: With **friendship variables** added: **63% of variance in SB**

Model 3: With **friendship variables** added: **63% of variance in SB**

Model 4: **64% of variance in SB** with **minority X social adjustment** interaction

Model 5: **65% of variance in SB** with **network X best friendship** interaction
<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racial/Ethnic Minority</td>
<td>-0.13***</td>
</tr>
<tr>
<td>Male</td>
<td>0.07*</td>
</tr>
<tr>
<td>Gender Other</td>
<td>0.01</td>
</tr>
<tr>
<td>Year 2</td>
<td>0.04</td>
</tr>
<tr>
<td>Year 3</td>
<td>0.03</td>
</tr>
<tr>
<td>Year 4</td>
<td>0.01</td>
</tr>
<tr>
<td>Year 5+</td>
<td>0.02</td>
</tr>
<tr>
<td>Openness</td>
<td>-0.08**</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-0.02</td>
</tr>
<tr>
<td>Extraversion</td>
<td>0.06</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>0.02</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>-0.02</td>
</tr>
<tr>
<td>SOBI Antecedents</td>
<td>0.12***</td>
</tr>
<tr>
<td>Academic Adjustment</td>
<td>0.08*</td>
</tr>
<tr>
<td>Social Adjustment</td>
<td>0.56***</td>
</tr>
<tr>
<td>Network Closeness</td>
<td>0.11**</td>
</tr>
<tr>
<td>Best Friend Closeness</td>
<td>0.07</td>
</tr>
<tr>
<td>Total Close Friends</td>
<td>0.04</td>
</tr>
<tr>
<td>Close Friends from High School</td>
<td>-0.05</td>
</tr>
<tr>
<td>Shared Network</td>
<td>0.06*</td>
</tr>
<tr>
<td>Social Adjustment × Minority on Campus</td>
<td>-0.09**</td>
</tr>
<tr>
<td>Network Closeness × Best Closeness</td>
<td>0.10**</td>
</tr>
</tbody>
</table>

*p<0.05  **p<0.01  ***p<0.001
## Findings

### Main Effects

- Models 1-3: **underrepresented group** membership had **negative association** with SB (H1 supported)

- Model 2: large change in explained variance when adding **adjustment variables** (H2 supported)

- Model 3: **network closeness** related to SB, but **best-friendship closeness** not related to SB (H3 partially supported)

### Moderators

- Social adaptation more strongly related to SB for students in **majority group** (H4 supported)

- Friendship network closeness more strongly related to SB for students with high **best friendship closeness** (Partial support for H5, but **counterintuitive**)
Moderators

Figure 1. Social Adjustment and Belonging by Group Membership

Figure 2. Network Closeness and Belonging by Dyadic Closeness
Implications

- What explains the difference between majority group members and underrepresented students when relating social adjustment to SB?

- Effect of friendship network closeness more nuanced than initial main effect suggested: What might happen at the dyadic level to explain interaction?

Future Directions

- Need to better understand underrepresented students at PWIs

- SB at institution vs. more proximal “pockets” of belonging

- Build nuanced developmental models of college student belonging

Joe Anistranski
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