How enriched images of possible selves enhance school engagement: evidence from an experiment

The Achievement Gap Initiative at Harvard

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National crisis in high school graduation

- Graduating high school is an attainable goal requiring mostly consistent effort (attend class, ask questions, participate, do some homework).

- But the gap is real.
  - National average for on-time high school graduation is 75%, 50% for African Americans, 53% for Hispanics (Orfield, et al, 2004)

- Even lower for low income youth
  - Local Detroit estimates are 40% - 44% on time graduation (Detroit News, May 2005)
What is going on?

• On the one hand, children and their parents pretty universally value school and school success.

• Yet boys do worse in school than girls.

• This gender gap is magnified among low income and minority children, particularly African American and Latino teens.
Students don’t lack positive visions or hopes for adulthood

• But wishes for success are not enough.
• What seems to be missing is the link between future visions (possible selves) and everyday choices related to school.
School success is not a one time private event

- Success is built on endless repetition of relatively mundane tasks, many of which are public
  - taking home and completing homework,
  - getting enough sleep,
  - setting and responding to the morning alarm clock,
  - paying attention and asking questions in class.
Students who see future success as

• Linked to these mundane here and now activities

• And are cued or reminded to engage in these activities

• And don’t feel that these activities would be frowned on by important others

• Are likely to move toward their goals.
Potential stumbling blocks

- Students do not necessarily see these strategies as linked to their self goals (possible selves).
- Contexts may not routinely cue engagement in these strategies even if students know to use them when cued or reminded.
  - But most teachers remind students to take home their homework and
  - most students know that failing in school does not improve future chances.
This suggests the centrality of the third possibility

- Students might know of but not engage in useful strategies because they were unsure how others would respond.
  - Is paying attention in class a ‘boy thing’, is it what ‘we’ do or is it what girls do?
A disjunction between personal values and assumed group values

• While personally wishing to succeed in school, youth assume that their peers do not value school success.

• African American youth may not want to appear to be ‘acting white’ in front of their peers... boys don’t want to act like girls... and so on.
Personal and social identities may feel discordant

- Though education is valued
  - carrying out everyday behaviors to work toward the goal of college education or to reduce the chances of school failure
  - may feel like it conflicts with goals of fitting in with one’s group
  - therefore not easily come to mind, feel effortful, not like the ‘real’ ‘true’ self
Effective use of possible selves depends on

• How easily and fluidly one can imagine one’s self doing what it takes

• How easily and fluidly specifically articulated strategies come to mind

• Fluidity is facilitated by avoiding a disjunction between personal and social identities.
  –While personally wishing to succeed in school, youth may assume that their peers do not value school success
This may be much easier in higher SES contexts

• Low SES contexts are less likely to provide easily accessible instantiations of success and less likely to model conversion of failure to success
• Develop a brief universal intervention to promote youth’s possible selves and strategies to attain them, subtly linking possible selves and social identities.

• Inoculate youth by disconnecting the automatic connection between ease and truth – so that difficulty (and the experience of everyday failures) would not be interpreted as lack of self-defining-ness of the attribute.
Solution?

- Develop a brief universal intervention to promote youth’s possible selves and strategies to attain them, subtly linking possible selves and social identities.

- Inoculate youth by disconnecting the automatic connection between ease and truth – so that difficulty (and the experience of everyday failures) would not be interpreted as lack of self-defining-ness of the attribute.
Process model

Source: Oyserman, Bybee, Terry 2006, *JPSP*
Content of social identity matters

- Focused on racial-ethnic (e.g., Oyserman, Gant, & Ager, 1995, JPSP; Oyserman, Kemmelmeier et al., 2003, SPQ) and gender (e.g., Sorensen & Oyserman, 2007) identities and making choices that produce school success.

- Content of these identities is relatively stable over time and has consistent impact on school success without intervention or social context change (e.g., Altschul, Oyserman, & Bybee, 2006, Child Development)

- But content can change with a brief universal intervention (e.g., Oyserman, Byee, & Terry, 2006, JPSP),
  - Resulting in improved grades, attendance, in-class behavior, homework, and reduced risk of depressive symptoms
Randomized experimental trial

- 8th grade cohort of 3 middle schools randomized to control and intervention.
- Primarily African American and Mexican American
- Fall 8th grade baseline, 8-week, 11 session intervention end prior to first report card, three follow-up points (spring 8th grade, fall and spring 9th grade). with a two year follow-up.
Youth were low income

- 67.3% received free/reduced lunch
- 35% households below the poverty line, 40% of adults employed (Census tract data, 105 tracts, 2000 Census).
Analyses were run twice

- ITT Analyses were run with all students as randomized whether they were in school or not.
- Analyses were also run with all students in the experimental condition who attended at least 5 STJ sessions and equivalent students in the control condition (n=228) as estimated by the Expectation Maximization algorithm model, a multivariate statistical method for identifying members of the control group who would be similar to the intervention group in their likelihood of being in school to receive the intervention.
• By the spring of 8th grade, STJ youth were significantly more likely than control youth to generate possible selves focused on school and possible selves focused on avoiding being ‘off track’ -- e.g., pregnant, on drugs, in a gang and to have strategies to reduce this risk.
School-Focused Possible Selves and Strategies

Pairs of balanced PS, Plausibility Scores

Balance

Plausibility

STJ

Controls
Feared “Off Track” Possible Selves and Strategies

Number of PS and Strategies

- Feared "Off Track" Possible Selves
- Strategies to avoid "Off Track"

Bar chart showing the comparison between STJ and Control groups for Feared "Off Track" Possible Selves and Strategies.
STJ had behavioral impact with real consequences

- Effects demonstrated both at the end of the school year and more importantly by the end of the next school year.
- Effects sustained and grew over the risky transition to high school
STJ significantly reduced school report of absences (end 8th grade)
Reduced summer school referral & improved standardized test scores

% of Youth referred to Summer School

Portion of Youth Referred to Summer School

- STJ
- Control
Reduced teacher rated disruptive behavior (8th grade) (same effect size for initiative taking)
STJ increased 8th grade Homework Time

Hours Per Week Doing Homework

- STJ
- Controls
Over time, effects are stable or grow

• By the end of 9\textsuperscript{th} grade, change in time spent doing homework is large ($d = 1.04$)
Over time, school records demonstrate

- Participants skip school less,
  - this statistically effect is stable at the end of 9th grade ($d = -.30$), a full 18 months after the intervention ended.

- Participants get better grades (change in grades, $d = .35$)
Over time, teachers report

- Fewer negative behaviors, e.g. “annoys peers”, “interferes with classmates’ work”, “is critical of students who do well”, “is reprimanded or sent to the office”, “verbally or physically abuses the teacher” ($d = -0.78$).

- More initiative-taking e.g. “does more than the assigned work”, “actively participates in classroom discussions” and “engages the teacher in conversation about the subject matter outside of classroom time” ($d = 0.43$).
Behavior change is mediated by possible selves

• The direct effects of STJ on behavioral outcomes are fully mediated by the effects on possible selves.
Identity-based motivation

- Participating in School-to-Jobs
  - 8th Grade Academic Possible Selves
  - 8th Grade Feared Off-track Possible Selves

  - Spend More Time Doing Homework
  - Better 8th Grade In-class Behavior
  - Skip School Less in 8th Grade

  - Better 9th Grade Grades
  - Better 9th Grade In-class Behavior
  - Less 9th Grade Depression
School-focused PS congruent with social identity

- At the two-year follow-up,
- Racial-ethnic identity and school-focused possible selves are positively associated for intervention youth, not for control youth.
Social identity and school-focused possible selves

- Possible selves and racial or ethnic identities are congruent for intervention youth, incongruent for control youth.
Possible selves will influence behavior

• When contextually cued and linked with strategies
  – Feels congruent with racial-ethnic identity
  – Metacognitive experience is congruent
    • Difficulty working on school-focused goals is articulated as part of the process
    • rather than as evidence for school not being a possible self
Process model

Source: Oyserman, Social Identity and Self Regulation, 2007
Read more?

- [http://sitemaker.umich.edu/daphna.oyserman](http://sitemaker.umich.edu/daphna.oyserman)