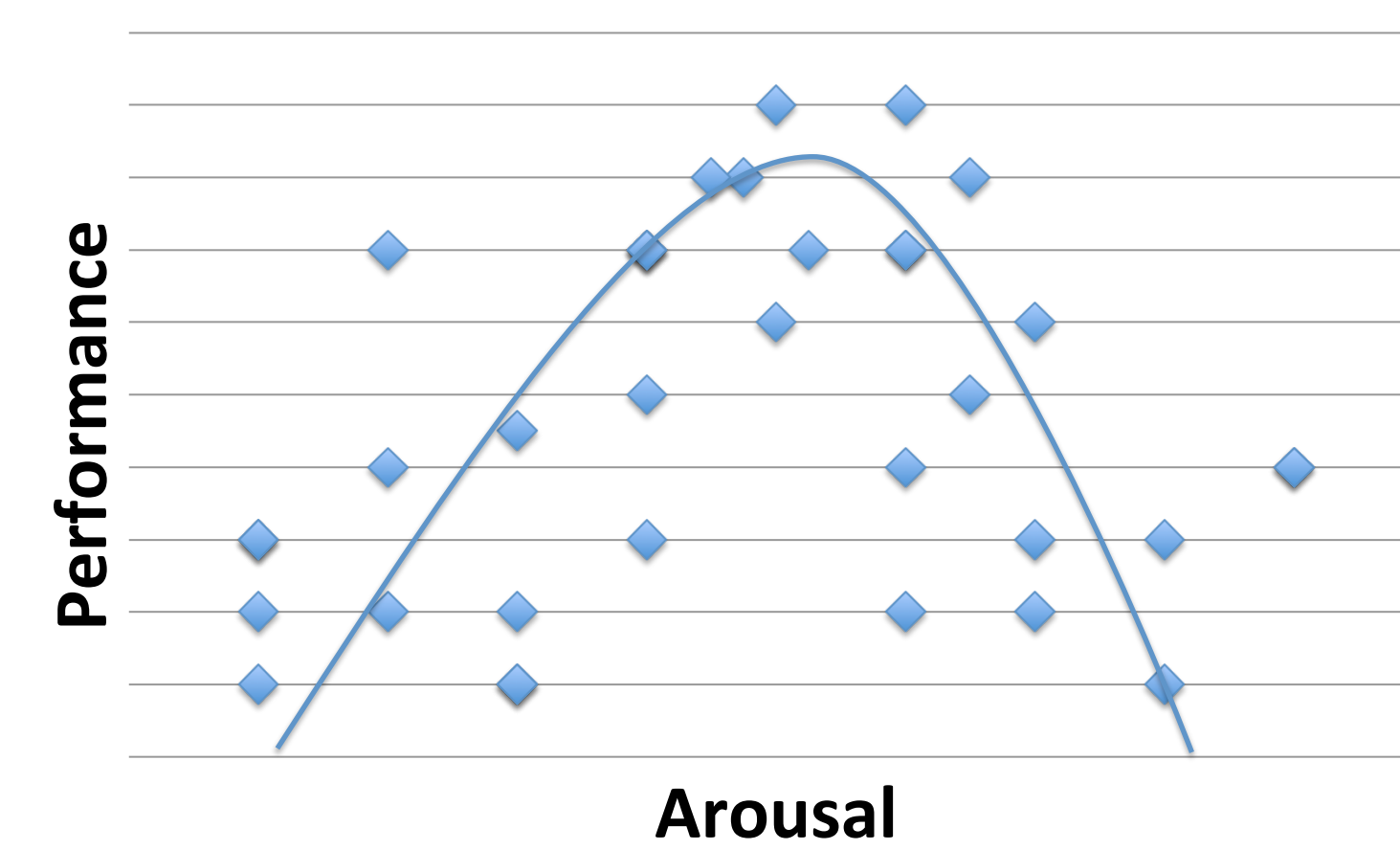


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## Background

- ◆ Adolescents with clinically elevated social anxiety experience dysfunction in numerous domains (de Lijster et al., 2018), including social competence and academic achievement (Kingery et al., 2010; Voltas et al., 2014).
- ◆ The Yerkes-Dodson Law (1908) proposes that moderate arousal levels are actually beneficial for optimal functioning.
- ◆ Arousal and performance have an inverted-U shape relation.
- ◆ Evidence with social anxiety:
  - ◆ At moderate levels, social anxiety may be related to increased academic functioning (Brière et al., 2017; Voltas et al., 2014).
  - ◆ Social anxiety has been shown to have social benefits for some youth (e.g. children and adolescents with autism; Pugliese et al., 2013; Usher et al., 2015).
- ◆ Little research has investigated the potential benefits of social anxiety for social functioning in a community sample of youth.
- ◆ More research is needed to understand if, at moderate levels, social anxiety may play a protective role for children and adolescents in multiple domains of functioning.



## Objectives

- ◆ Apply a positive development perspective to the examination of social anxiety among early adolescents in accordance with the Yerkes-Dodson law
- ◆ Investigate the potential protective role of moderate social anxiety by assessing curvilinear associations between social anxiety and social and academic functioning

## Methods

### Participants

- ◆ N = 1,623 7<sup>th</sup> and 8<sup>th</sup> grade students recruited from five middle schools in the New England region of the United States
- ◆ 51% Girls
- ◆ 52% Caucasian, 21% Hispanic, 9% African American, 3% Asian
- ◆  $M_{age} = 12.75$  years

### Procedures

- ◆ Trained research staff distributed paper surveys to students in school at two time points ~ 6 months apart (Fall 2016 & Spring 2017).
- ◆ Movie passes or gift cards were given to adolescents upon survey completion.

## Methods

### Measures

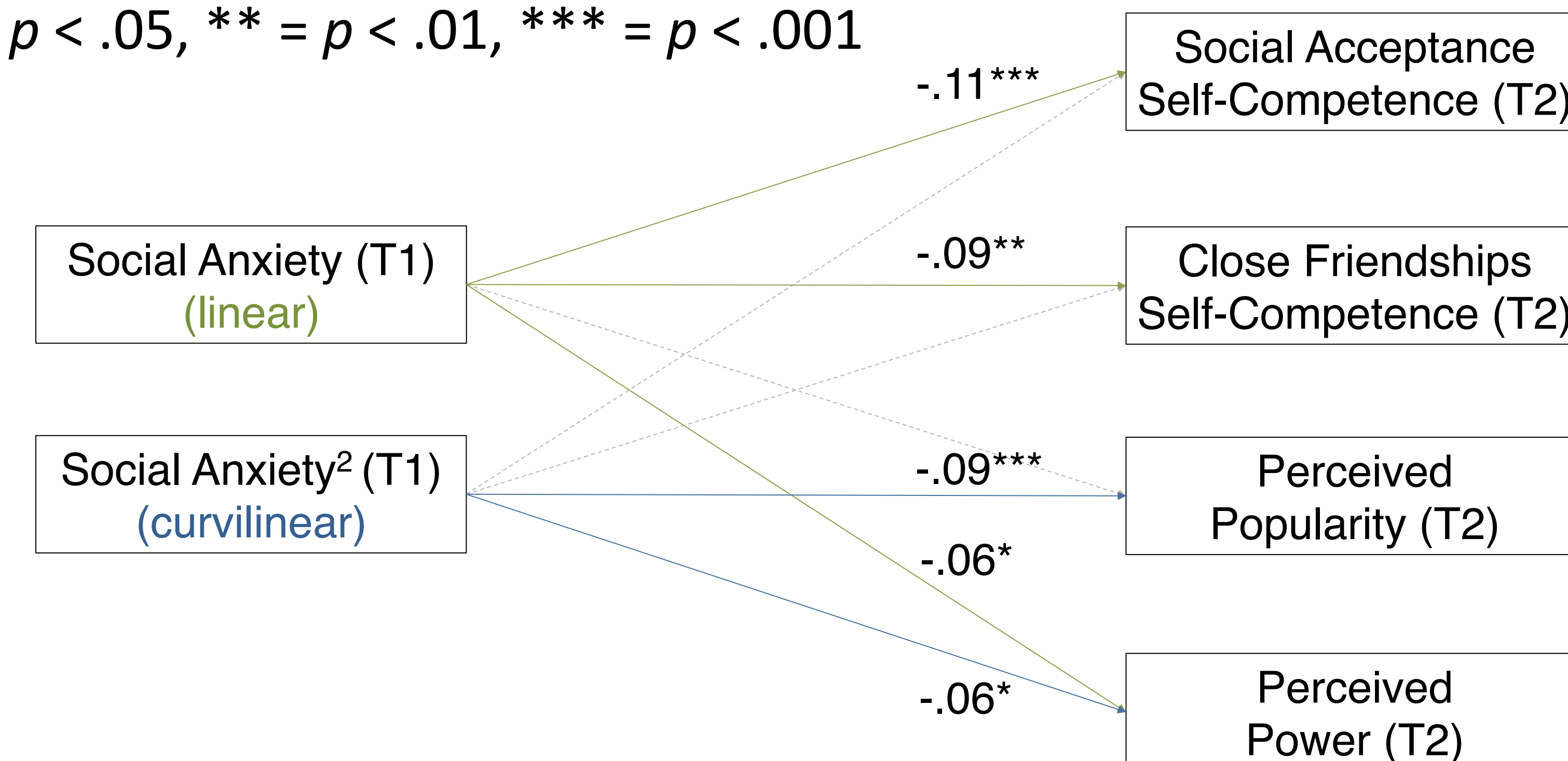
- ◆ Social Anxiety Disorder Subscale of the **Screen for Child Anxiety Related Emotional Disorders** (SCARED; Birmaher et al., 1999):  $\alpha = .87$  at both time points.
- ◆ Social Acceptance, Close Friendships, and Academic Subscales of **Harter's Self-Perception Profile for Adolescents-Revised Question Format** (SPPA-R; Wichstrom, 1995);  $\alpha = .70-.79$  across time points.
- ◆ **Subjective Social Status Scale** (Sweeting et al., 2011): adolescents compared their perceived power, popularity, and school grades to their peers (ex: How popular are you compared to the rest of your class? Place an X on the ladder, people at the top are the most popular).
- ◆ Participants also described their **current school grades** (ex: mostly A's, A's and B's, etc.).

### Analytic Plan

Two path models examined the linear and curvilinear paths from social anxiety at Time 1 (T1) to social and academic functioning at Time 2 (T2). Analyses controlled for gender and social or academic functioning at T1.

## Results

Standardized coefficients are reported  
\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$



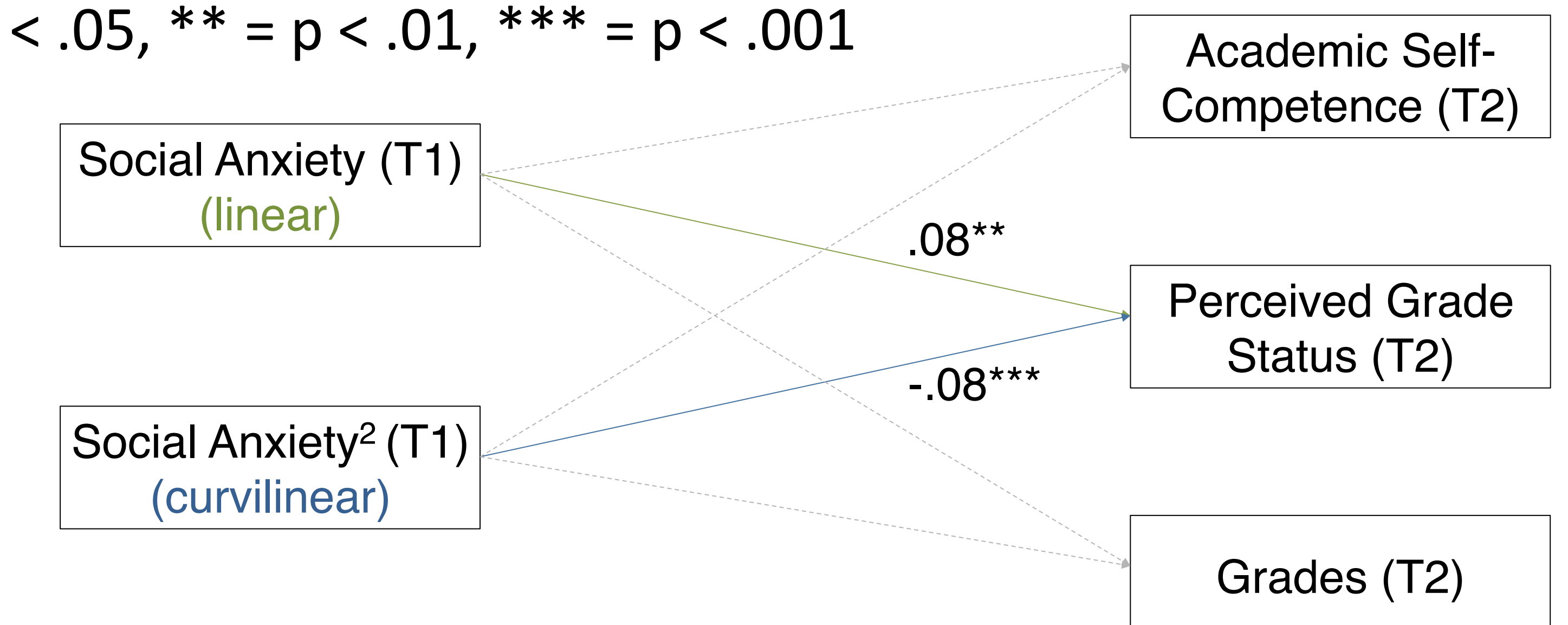
Model fit:  $\chi^2(8)=57.57$ ,  $p < .001$ ; NFI=.99; CFI=.99; RMSEA=.06

- ◆ Adolescents' social anxiety had a negative linear association with social acceptance self-competence ( $\beta = -.11$ ,  $p < .001$ ), close friendships self-competence ( $\beta = -.09$ ,  $p < .01$ ), and perceived power ( $\beta = -.06$ ,  $p < .05$ ).
- ◆ Social anxiety had a negative quadratic association with perceived popularity ( $\beta = -.09$ ,  $p < .001$ ) and perceived power ( $\beta = -.06$ ,  $p < .05$ ), suggesting an inverse-U shape function.

This research was supported by The Alvord Foundation. For more information or to obtain a copy of this poster, please visit: <https://pandaresearchproject.org/>

## Results

Standardized coefficients are reported  
\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$



Model fit:  $\chi^2(8)=54.25$ ,  $p < .001$ ; NFI=.99; CFI=.99; RMSEA=.06

- ◆ There was a positive linear association ( $\beta = .08$ ,  $p < .01$ ) between social anxiety and perceived academic achievement.
- ◆ There was a negative quadratic association ( $\beta = -.08$ ,  $p < .001$ ) between social anxiety and perceived academic achievement, suggesting an inverse-U shape function.

## Conclusions

- ◆ Overall, findings provide partial support for hypotheses that social anxiety, at moderate levels, would be linked to the most adaptive social and academic outcomes in early adolescence.
- ◆ Social anxiety negatively impacted facets of social competence in a linear function, but social anxiety at moderate levels was actually most positively predictive of adolescents' *perceived* peer status and academic achievement.
- ◆ In accordance with the Yerkes-Dodson law (1908), results demonstrate that moderate social anxiety, relative to low or high social anxiety, may be related to the highest levels of functioning when considering some comparative indicators of social and academic perceptions in early adolescence, including perceived popularity, power, and grade status.

### Implications

- ◆ Evidence is clear that clinical levels of anxiety have negative implications for adolescents' social and academic performance, BUT current negative conceptualizations of adolescent anxiety do not capture the potentially protective impact of moderate, subclinical anxiety.
- ◆ Adolescents with moderate levels of anxiety may be just aroused enough to attend to and focus on social or academic goals, thus improving their performance without causing debilitation.
- ◆ Strength-based interventions for adolescent anxiety can recognize the potential benefit of moderate levels of social anxiety, instead of focusing on removing all anxiety symptoms.