

Transmission of academic values in mathematics between friends



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Theory & Hypotheses

Expectancy x Value theory (Eccles, 2007)

- Academic values are defined as beliefs why students engaging in a task
- This study focuses three academic values: Intrinsic value, attainment value, and utility value

Value transmission theory proposes two steps (Goodnow & Grusec, 1994)

1. Perception of values
2. Acceptance of values

H1: Friends' actual academic values influence friends' perceived academic values.

H2: Friends' perceived academic values influence students' academic values.

H3: Friends' actual academic values influence students' academic values through the friends' perceived academic values.

Methods & Results

Sample

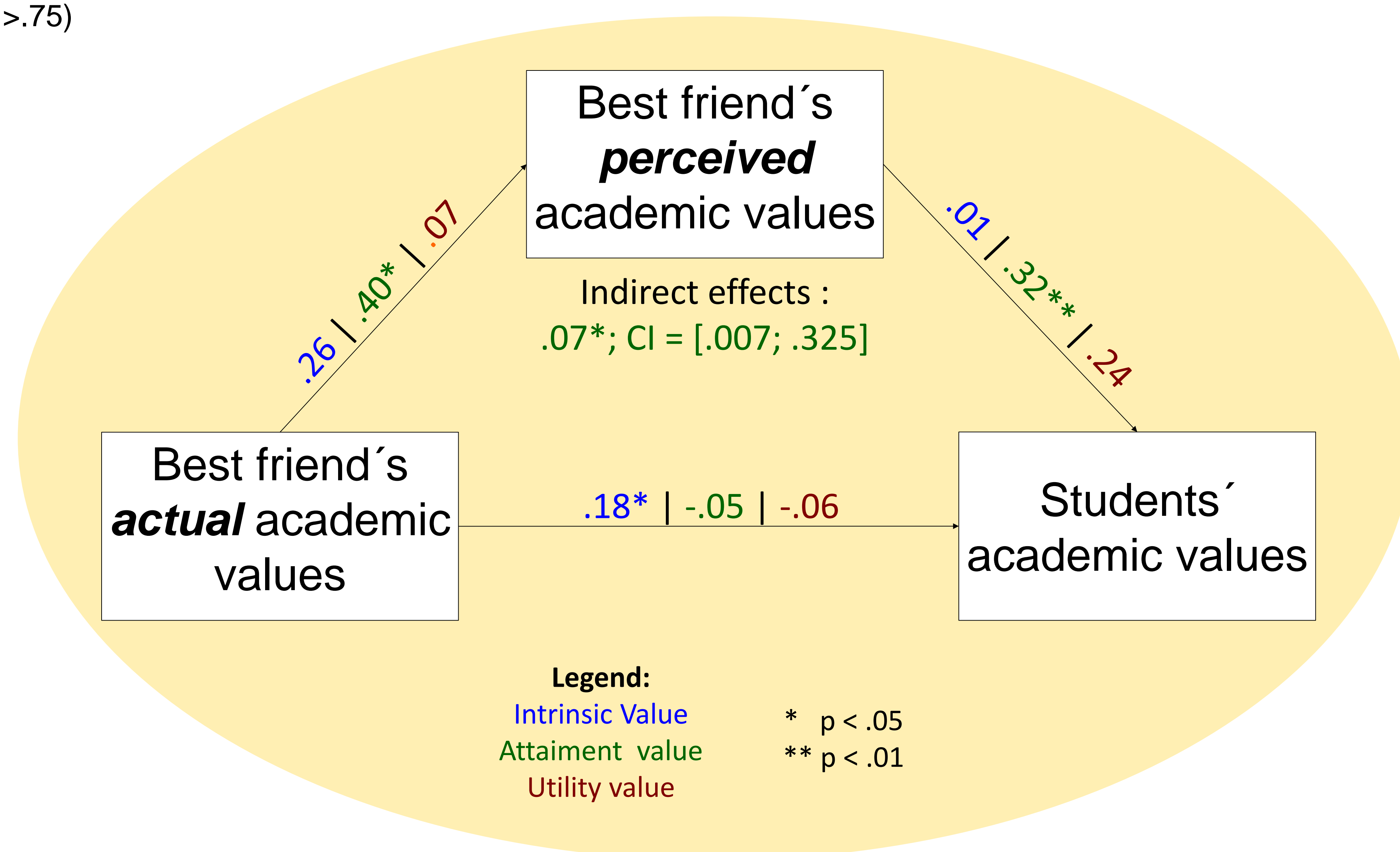
The sample is based on two waves of a larger longitudinal-study (about five months time lag) of 152 reciprocated, stable friendship dyads (90 female dyads, 62 male dyads; mean age: 11.93 years, SD=1.13).

Measures

- Best friends were indicated through peer nomination (Bukowski et al., 1994)
- Adolescents'/best friends' academic values (intrinsic value, attainment value, utility value) were assessed by SESSW (Steinmayr & Spinath, 2010) (Cronbach's α T1 and T2 >.75)

Analyses

- Structural Equation Modeling Mplus 8.0 (Muthen & Muthen, 2017)
- Dyadic restrictions (Olsen & Kenny, 2006)
- Students' academic values (T2) were predicted by the students' perception of friend's academic values (T2), as well as friend's actual academic values (T1). Indirect effects were tested through bootstrapping (MacKinnon, 2008)



Discussion

- Results indicate that the transmission process is not a uniform process for all academic values.
- intrinsic values were adopted directly and not indirectly through students' perception: Emotional contagion theory might fit better (Hatfield et al., 1994)
- attainment value were adopted as proposed: value transmission theory fits (Goodnow & Grusec, 1994)
- utility value were adopted neither directly nor indirectly through students' perception: their future career might be less important during early adolescence.

Limitations

- the samples of female and male friendship dyads were quite small.
- this study investigated adolescents attending the fifth and seventh grades. Future studies should also focus on older adolescents to investigate changes in socialization effects during adolescence.