"I'M LESS INTERESTED IN MATH CAUSE I'M BETTER AT LANGUAGES"

DIMENSIONAL COMPARISONS IN ADOLESCENTS' GENDERED TASK VALUE DEVELOPMENT

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01 STUDENTS RECEIVE GRADES ALL THE TIME – DOES IT IMPACT WHAT THEY VALUE?

Students make important life decisions based on what they value – what they find *interesting*, *important*, *useful* and not *costly* (subjective task values from Situated Expectancy Value Theory/SEVT, Eccles et al., 2022).
But is it shaped by their **past achievement**?

They might, in two ways:
- Comparing with others (**social comparison**) AND
- Comparing with their own achievement in other domains (**dimensional comparison,** Möller & Marsh, 2013)

More importantly, these values are always found to be **gendered**.

Yet not much is known yet on (1) how both **comparison processes** influence task values, and (2) how **gender** influence this relationship.

Therefore, we set forth to answer the following questions:

02 RESEARCH QUESTIONS & HYPOTHESES

RQ1 How does past achievement in different domains influence subsequent Subjective Task Values (STV)?

We expect
Social comparison: ⊕ within-domain comparison
(e.g., higher math achievement – higher math values)

Dimensional comparison: ⊖ cross-domain comparison
(e.g., higher math achievement – lower verbal values)

RQ2 How does gender influence the relation between past achievement and STV?

We explore
Moderation effect:
achievement affect boys and girls differently
→ different task values
Mediation effect:
boys and girls have different achievements
→ different task values

03 METHODOLOGY

From 1072 students (53% female, 12.8 y.o. @ Grade 7) in Helsinki (Finland) we collected:

SUBJECTIVE TASK VALUES
(range: 1-7)
@ Grade 8
Rating for Math and Finnish:
Intrinsic value (enjoyment),
Attainment value (importance),
Utility value (usefulness),
Cost

SCHOOL GRADES
(range: 4-10)
@ Grade 7
Math and Language (Finnish)

Data analysis:
STRUCTURAL EQUATION MODELING
Achievement → STV facets (as latent variables);
+ multigroup analysis to test moderation effect;
+ gender to the path to test mediation effect.

04 RESULTS & IMPLICATIONS

1 Past achievement in different domains influence subsequent Subjective Task Values (STV) in specific ways (see *Figure 1*):

We found support for:
Social comparison:
⊕ within-domain comparison
- *Higher math achievement → higher math values*
  For all values (intrinsic, attainment-utility, cost)
- *Higher verbal achievement → higher verbal values*
  For all values (intrinsic, attainment-utility, cost)

Dimensional comparison:
⊖ cross-domain comparison
- *Higher verbal achievement → lower math values*
  Only for intrinsic value and cost

2 Gender influences STV directly, not through moderation NOR dimensional comparison of past achievement (see *Figure 2*):
- *Indirect effect of gender is only through within-domain achievement*

To help students navigate important life choices, help them to process their past achievement in different domains – **encourage openness** in their growing skills, interests, and opportunities!

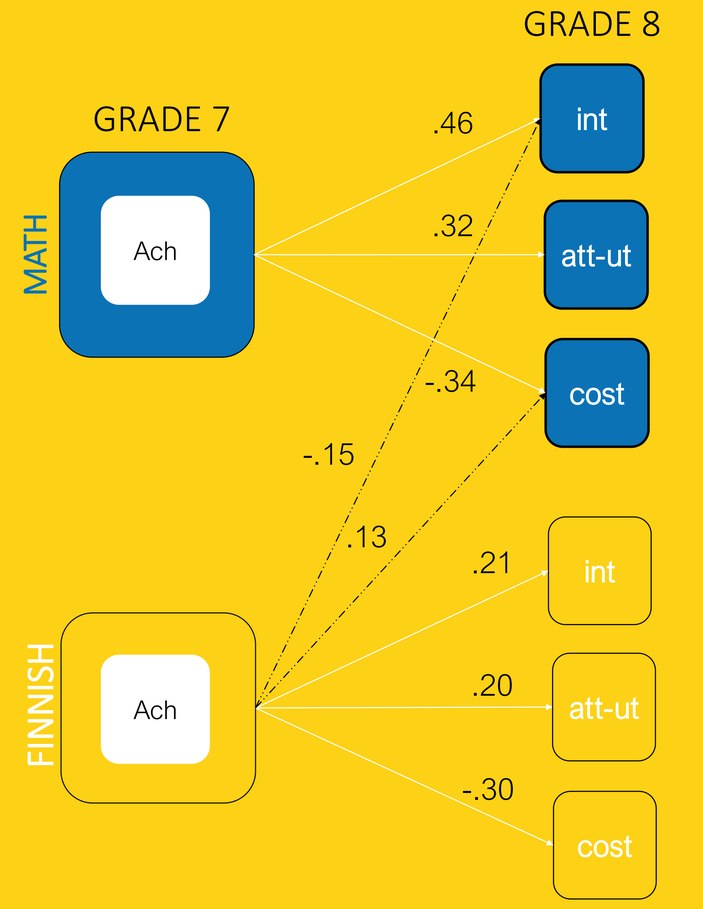


Figure 1.
Summary of significant regression paths (p<.05) answering RQ1

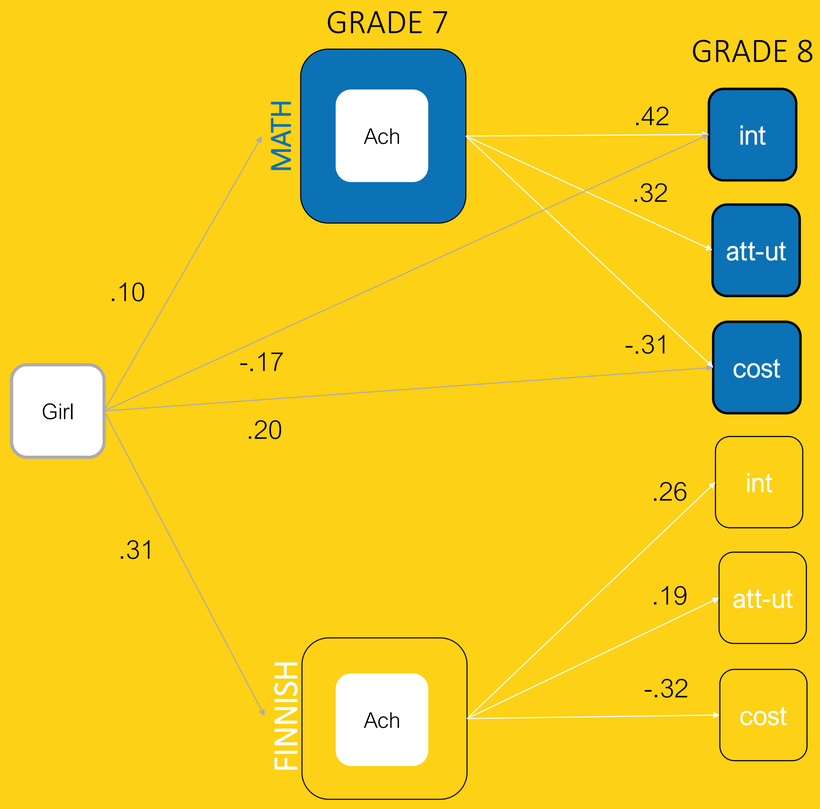
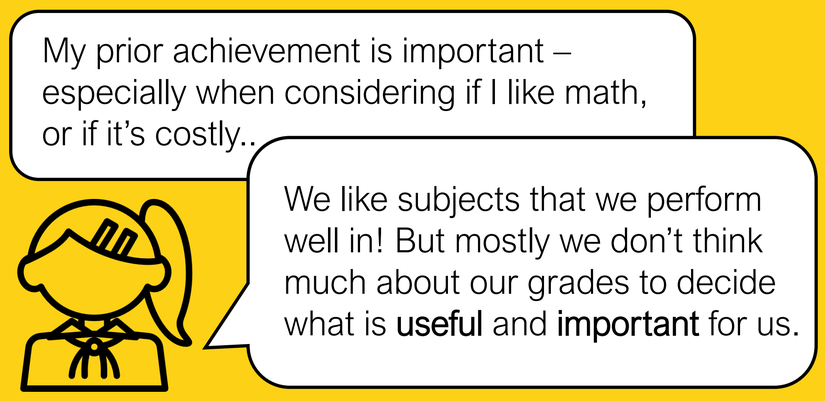


Figure 2.
Summary of significant regression paths (p<.05) answering RQ2

Note. ***ach****: achievement/students' grades;* ***int****: intrinsic value (enjoyment);* ***att-ut****: attainment-utility value (importance – usefulness);* ***cost****: relative cost*



REFERENCES

Eccles, J. S., & Wigfield, A. (2020). From expectancy-value theory to situated expectancy-value theory: A developmental, social cognitive, and sociocultural perspective on motivation. *Contemporary Educational Psychology*, *61*, 101859. https://doi.org/10.1016/j.cedpsych.2020.101859

Möller, J., & Marsh, H. W. (2013). Dimensional comparison theory. Psychological Review, 120(3), 544–560. https://doi.org/10.1037/a0032459