

PARENTING AND KINDERGARTEN SCHOOL READINESS: AN IDENTICAL-TWIN DIFFERENCES DESIGN

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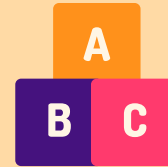
WHAT IS SCHOOL READINESS?

Abilities required to have school success, from two dimensions:

AFFECTIVE

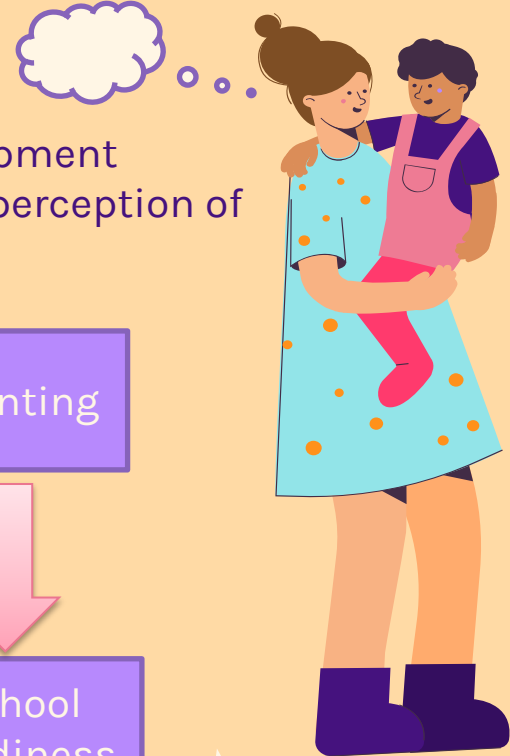
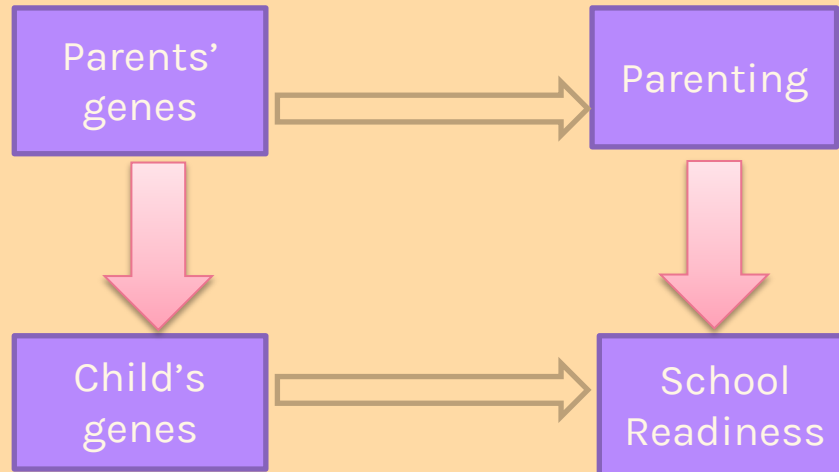


COGNITIVE



PARENTING AND SCHOOL READINESS

- Family as the most important context of development
- Parenting as parental behaviors and parental's perception of his behaviors toward the child



Bandura, 1986; Bono et al., 2016; Guimond et al., 2012; Junttila et al., (2007); Lipscomb et al., 2018; Mathis et Bierman., 2015; Unicef, 2012; Vitaro et al., 2009.

LIMIT OF CLASSICAL TWINS STUDIES



Identify what is due to:

- Genetic
- Shared environment
- Non-shared environment

Without testing the effect of a specific aspect of the environment.

SOLUTION: Identical-twin differences design

DOES PARENTING PREDICT KINDERGARTEN SCHOOL READINESS AT AGE 5?

Quebec Newborn Twin Study (QNTS)

256
TWINS



BORN IN 1998

5 MONTHS



18 MONTHS

30 MONTHS



5 YEAR OLD

MESURING PARENTING BEHAVIORS

PARENTAL COGNITIONS AND CONDUCT TOWARD THE INFANT SCALE (PACOTIS; BOIVIN ET AL., 2005)

- Mother's self-reported questionnaire, at 5, 18 and 30 months
- 10-point Likert scale ranging to 0 (Not at all what I think) to 10 (exactly what I think)

Scales	Items
Self-Efficacy	"I feel that I am very good at keeping my child amused"
Perception of Impact	"Regardless of what I do as a parent, my child will develop on his/her own"
Hostile-reactive behaviors	"I have lost my temper when my baby was particularly fussy"
Overprotection	"I prefer that my baby sleeps in the same room as me at night"

MESURING KINDERGARTEN SCHOOL READINESS

PRE-ACADEMIC SKILLS

Lollipop (Chew, 1981)



VISUOSPATIAL SKILLS

The Block Design subtest of the Wechsler Preschool and Primary Scale of Intelligence-Revised (WPPSI-R; Wechsler, 1989)



RECEPTIVE LANGUAGE

Peabody Picture Vocabulary Test (PPVT; Dunn et al., 1993)



EXTERNALIZING BEHAVIORS

CBCL (Achenbach & Rescorla, 2001)



ATTENTION-DEFICIT AND HYPERACTIVITY BEHAVIORS

CBCL (Achenbach & Rescola, 2001)



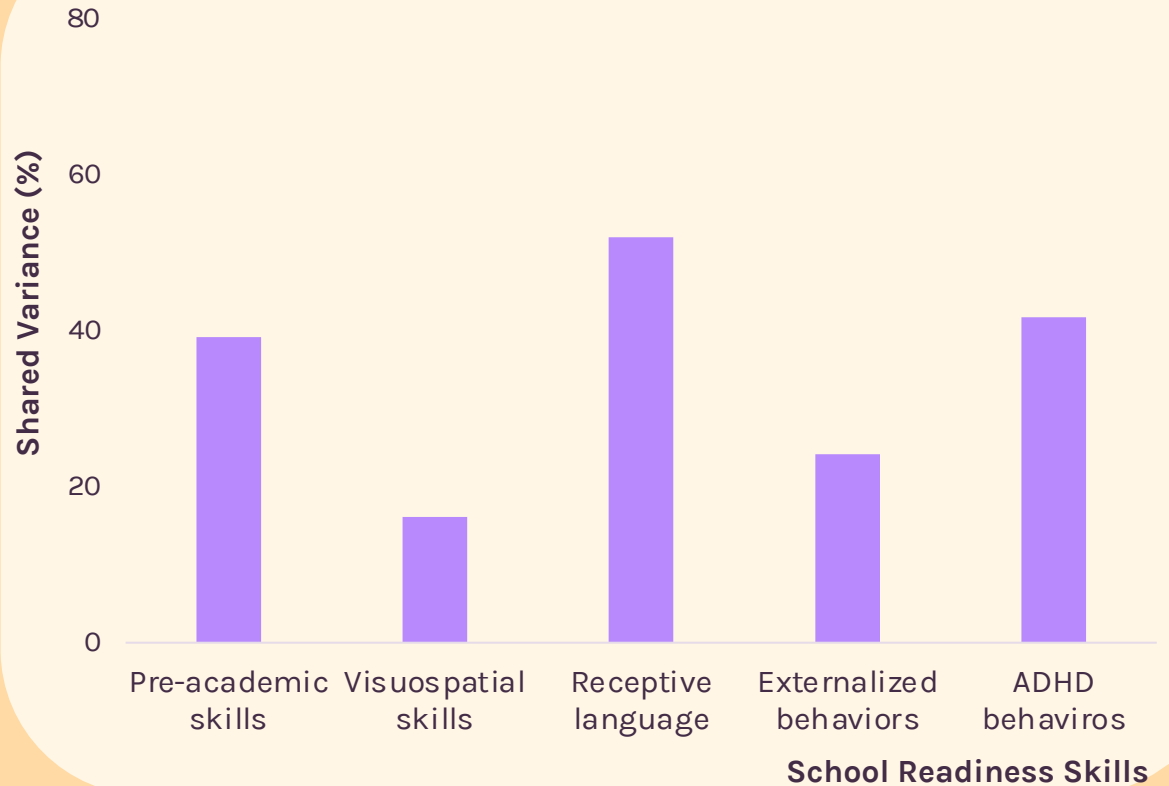
METHOD

- Within twin pairs phenotypic correlations between parenting behaviors
- Within twin pairs phenotypic correlations between kindergarten school readiness
- Linear regressions



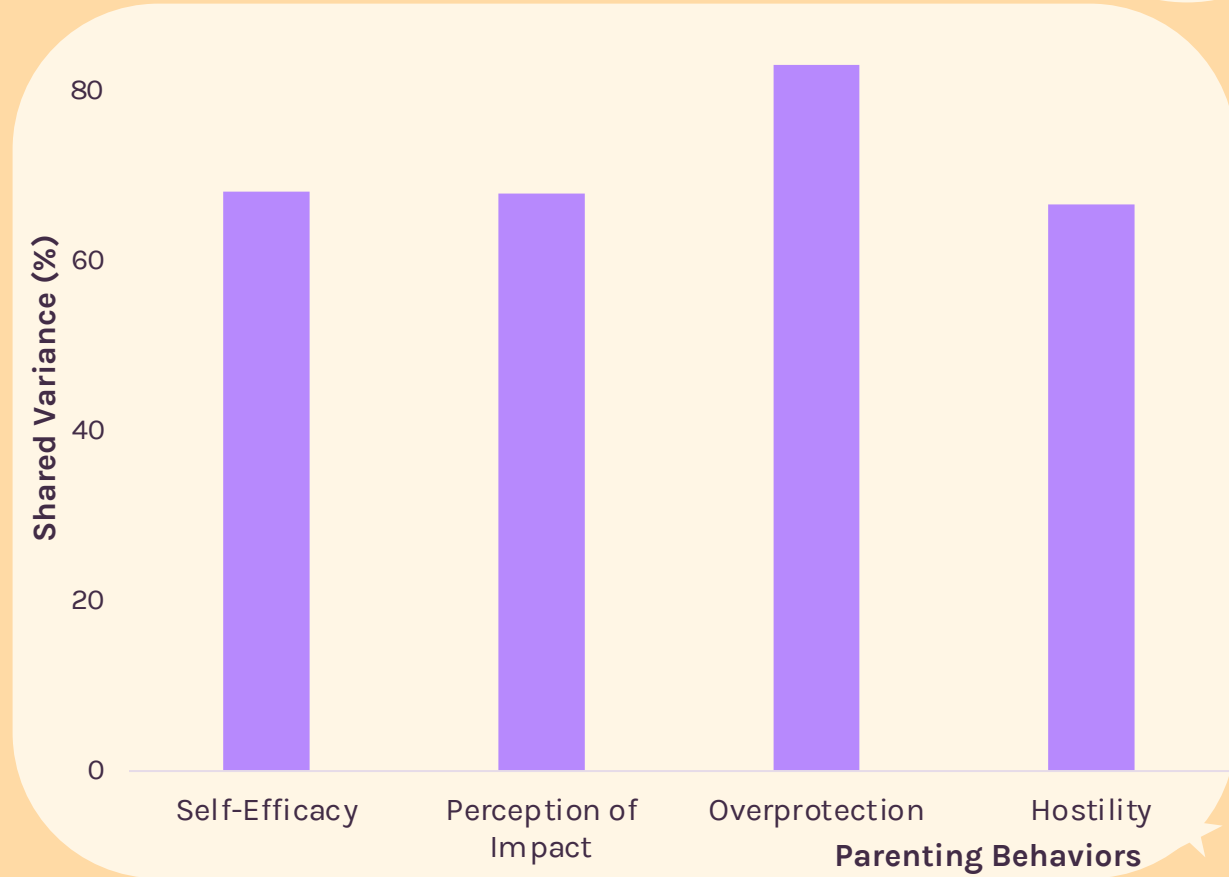
RESULTS

Shared variance in school readiness between monozygotic twins



RESULTS

Shared variance in parenting behaviors between monozygotic twins

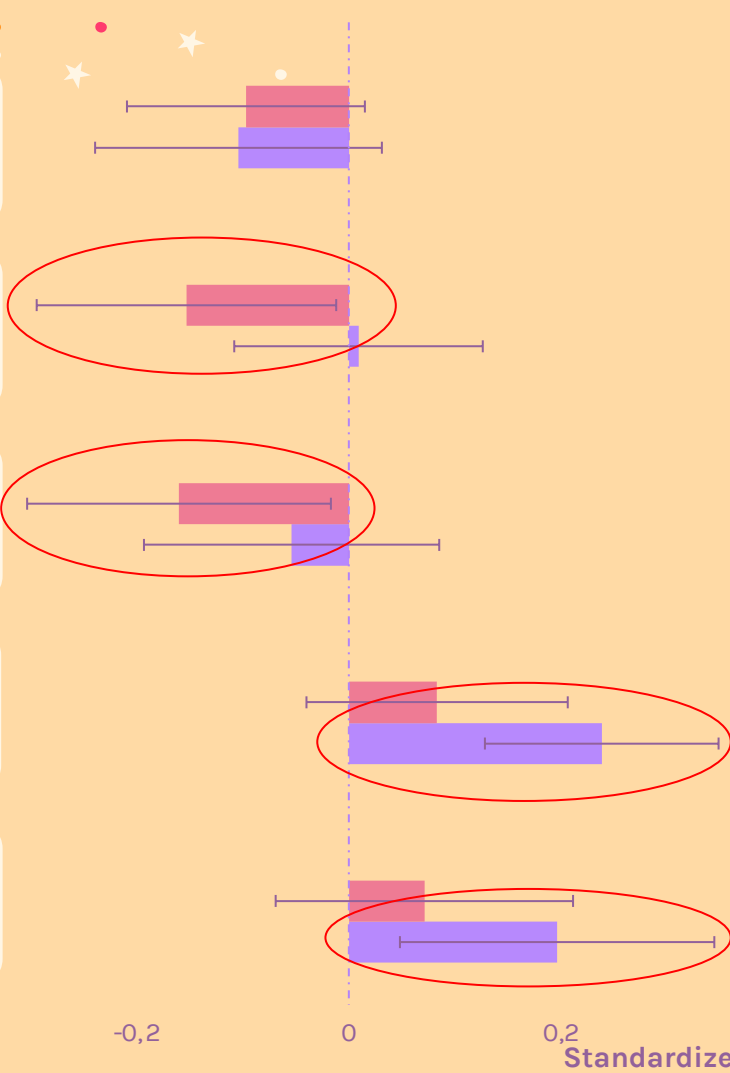




RESULTS

Does Self-efficacy or Perception of Impact predict school readiness in monozygotic twins?

- Self-efficacy
- Perception of Impact



RESULTS

Does overprotection or hostility predict school readiness in monozygotic twins?

- Overprotection
- Hostility

-0,4

-0,2

0

0,2

0,4

Standardized Estimate (β)

DISCUSSION

Surprising results about self-efficacy

SOCIAL LEARNING THEORY

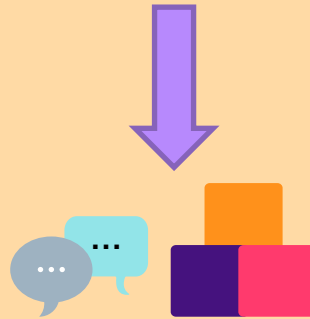
PAST LITERATURE

- Greater sense of self-efficacy increases positive outcomes of the child



OUR RESULTS

- Greater sense of self-efficacy decreases visual-spatial skills and receptive language of the child
- Same pattern for overprotection



DISCUSSION AND CONCLUSION

PARENTING IN MONOZYGOTIC TWINS

- Parents have slightly different behaviors toward their twins

PARENTING AFFECT SCHOOL READINESS

- Even slightly differences in parenting cause difference in school readiness, over and above genes

BOTH DIMENSIONS OF SCHOOL READINESS ARE AFFECTED BY PARENTING

- Overprotection, self-efficacy and perception of impact -> cognitive skills
- Hostility -> affective skills

LIMIT OF THE STUDY

- Parenting measures non specific to school readiness (e. g. parental stimulation)

THANKS!

Do you have any questions?

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Special thank you to the Quebec Newborn
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