

Longitudinal Associations Between Parenting Practices and Decision-Making Competence

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Introduction

Decision-Making Competence (DMC; Parker & Fischhoff, 2005) is a latent construct that measures individual differences in the tendency to respond rationally .

- Lower DMC has been associated with real life outcomes across lifespan, including:
 - Lower Academic performance
 - Greater incidence of risk behaviors
 - Sexual risk taking
 - Substance use
 - Delinquency

Parenting Practices

- Ineffective parenting practices have been associated with adverse cognitive and socioemotional development. These include:
 - Low parental monitoring (e.g., knowing children's whereabouts).
 - Low involvement (e.g., communication with children, knowing their friends)
 - Psychological control (e.g., attempt to control child's behavior indirectly via guilt and instilling anxiety).
- These practices predict risk behaviors, including:
 - Low academic performance
 - Increased drug and alcohol use
- Parenting impacts the development of cognitive ability and executive functioning (EF), self-regulatory behavior and Impulse control
- Knowing that parenting can impact the development of cognitive abilities is vital to advantageous decision making
- However, little is known about how parenting practices impact actual decision processes that precede poor choices.

The Present Study

- Based on past developmental and decision-making research, we hypothesized that parenting practices (specifically monitoring/involvement and psychological control), reported at age 10-12, would predict a child's later decision-making competence (at age 19)
 - Specifically, greater parental psychological control and lower monitoring will be associated with lower DMC scores .

Method

Participants

- As part of a longitudinal study, participants were recruited from a diverse sample of families Children age 10-12 (baseline, n=775) were tracked through emerging adulthood (at age 14 and 19 years (n=514)

Measures

Participants completed the following scales:

- **Children's Report on Parental Behavior Inventory (CRPBI;** Schludermann & Schludermann, 1970)
 - We collapsed reports on both parents for:
 - *Psychological control vs. Autonomy:* Indirect means of control(i.e. guilt/ anxiety)
 - *Lax vs. Firm Control:* Parental control of child's behavior through direct methods (i.e. rules)
- **Parental Supervision/Involvement Scale**(Loeber et al., 1998). We also included a scale of parent-reported parental monitoring & involvements
- **Youth Decision Making Competence (Y-DMC,** Parker & Fischhoff, 2005; Age 19)
 - Assessed at age 19 and measures rational responding through decision-making tasks:
 - *Resistance to framing:* Consistency in choices across logically similar choices
 - *Resistance to sunk costs:* Ability to ignore previous investments when making decisions
 - *Over/Underconfidence:* Calibration of confidence to one's knowledge level
 - *Consistency in risk perception:* Degree that probability rules are followed
 - *Recognizing social norms:* Ability to recognize peer social norms
 - *Applying decision rules:* Ability to utilize decision rules to make appropriate choice
- **Covariates**
Based on previous research, we also included indices of neighborhood disadvantage (Ross & Mirowsky, 2001), the presence of a parental substance use disorder (SUD), and the child's sex.

Data Analytic Plan

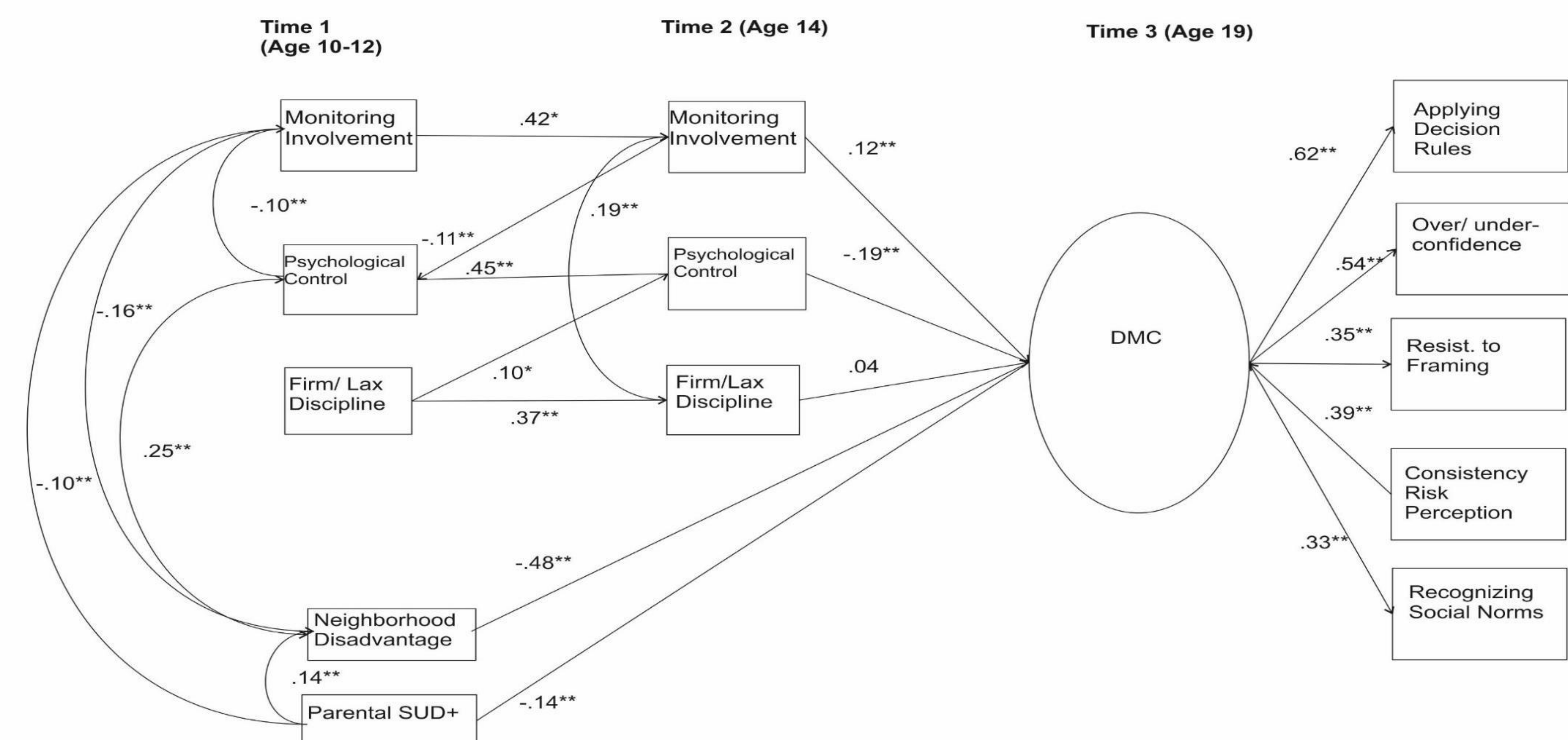
Correlational analyses were first conducted between the variables of interest. The main analysis was a cross-lagged longitudinal Bayesian SEM model. This model allowed us to test the longitudinal associations of parenting, both distally (i.e., indirect effect of age 10-12 parenting on DMC via age 14 parenting), and more proximally (direct effect from age 14 parenting to DMC)

Results

Correlations between DMC and Covariates

- We found that greater neighborhood disadvantage was associated with lower DMC, $r = -.42, p < .01$.
- Additionally, children who had a parent who met DSM criteria for SUD scored lower on DMC, $r = -.20, p < .01$.
- Child's sex was not correlated with DMC scores, $r = .00$.

Bayesian SEM Analysis Testing the Longitudinal Associations between Parenting and DMC



This model revealed several notable results:

- We found that parenting practices showed relative stability over a 2 -4 year period.
- Holding other variables constant, greater parental monitoring at age 14 positively predicted age 19 DMC scores, whereas greater psychological control was associated with lower DMC scores.
- We found significant indirect effects for these variables, suggesting that earlier parenting practices have a lingering influence on future DMC performance
 - age 10-12 Monitoring → Age 14 Monitoring → DMC = .07, 95% Credible Interval .01 - .10 .
 - age 10-12 Psych. Control → Age 14 Psych Control → DMC = -.10, 95% Credible Interval -.16 - -.05 .

Conclusion

- We found that parenting practices, especially maintaining psychological control through guilt/anxiety and low parental monitoring at earlier ages, were associated with lower DMC scores at the age of 19
 - This effect holds, even after controlling for SES and Parental SUD+.
- Implications for prevention and intervention:
 - Parenting skills training may improve children's decision-making. A combined approach which integrates parenting and decision skills
 - Decrease risk behaviors through teaching critical thinking and decision-making skills
- Future research could be conducted to test further mechanisms by which parenting impacts later decision behaviour, as well as understanding how parenting may impact trajectories of decision skills over time.