



# Adolescent Social Environments and Antisocial Behavior in Emerging Adulthood



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# Social Environments in Adolescence and Crime in Emerging Adulthood

- ❖ Family, school and peer environments predict crime in adolescence
- ❖ Less is known about when these environments are predictive and the continuity/discontinuity of these environments across adolescence
- ❖ Less is known about the impact of these adolescent environments on crime in young adulthood
- ❖ It is instructive to explore the contribution of these social environments from pre adolescence to late adolescence on young adult crime



# Research Questions

- Do level and change in social environments during early adolescence period predict age 19 antisocial behavior?
- How are social environments in early adolescence related to social environments in late adolescence?
- Do level and change in social environments during late adolescence predict age 19 adolescent behavior?



# Analysis Sample

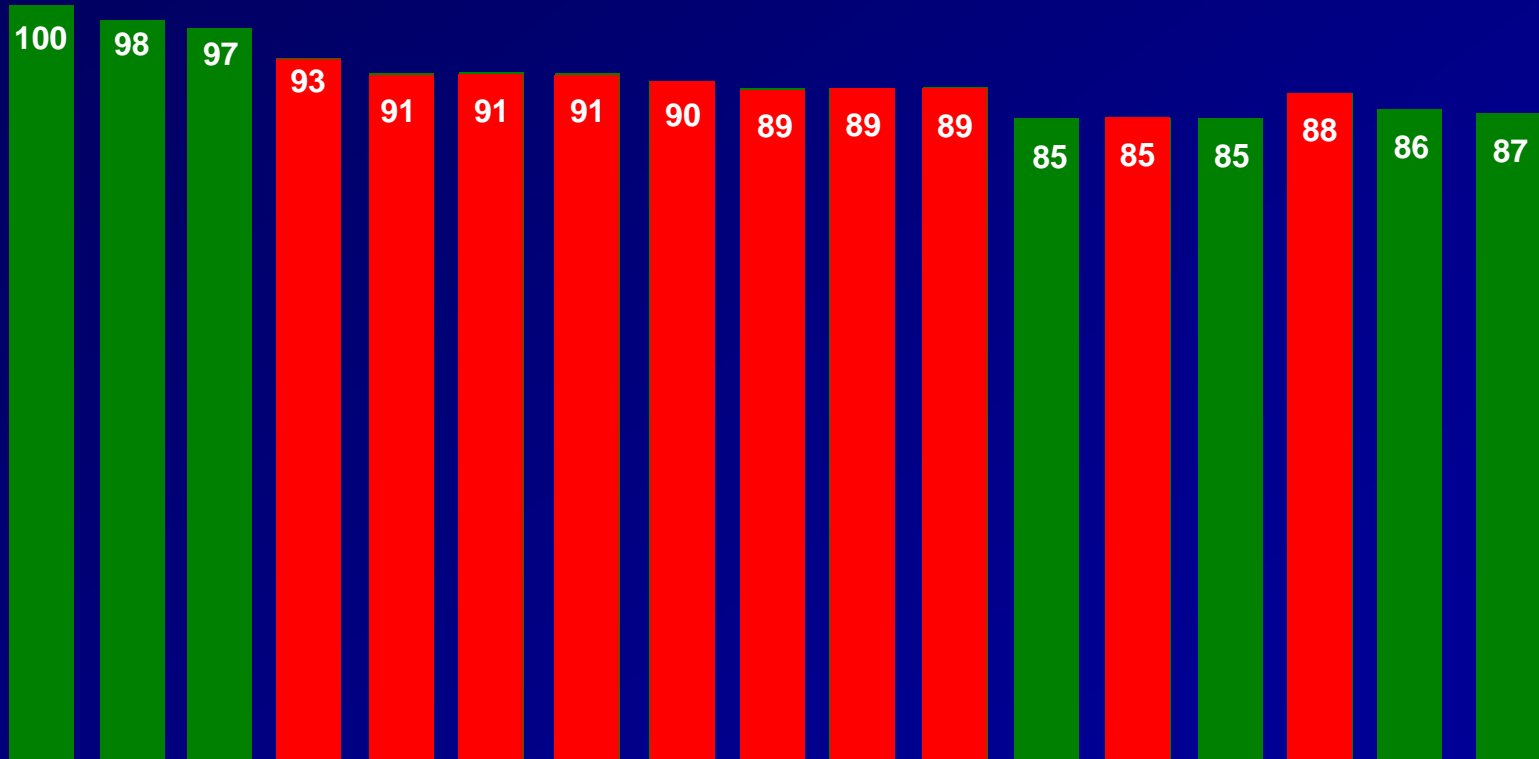
- Raising Healthy Children Project began in 1993 (PI: Catalano)
- Longitudinal panel of 1st and 2nd grade students (76% consented)
- N=1,040
- Full Information Maximum Likelihood estimation used for missing data.
- 19.1 years old (range=18.3 ~ 20.4), spring post high school
- 54% Male
- 81% White, 7% Asian or Pacific Islander, 4% Hispanic, 4% Black, and 3% Native American
- 26% Low income household
- 28% single-parent household



# Data Collection Response Rates

1993 – 2006  
Total Sample = 1040

Early Adolescence      Late Adolescence      Emerging Adulthood



Year	F 93	Sp 95	Sp 96	Sp 97	Sp 98	Sp 99	Sp 00	Sp 01	Sp 02	Sp 03	Sp 04	F 04	Sp 05	F 05	Sp 06	F 06	Sp 07	Sp 08	Sp 09
Age	5/6	7/8	8/9	9/10	10/11	12/13	13/14	14/15	15/16	16/17	17/18	18	18/19	18/19	19/20	19/20	20/21	21/22	22/23

Dichotomous measures based on self-report in the prior year form a latent variable:

- Violence: hitting “someone with the idea of seriously hurting”, beating “someone so badly they probably need a doctor”, threatening someone with a weapon, or using “a weapon or force to get money or things from people” -
- Non-violent crime: selling illicit drugs, stealing a vehicle or something worth more than \$200, or breaking into “a house, store, school or other building without the owner's permission”.
- Trouble with police: arrest or “in trouble with the police for something you did”.



# Social Environment Measures

## Grades 5-12

- Family: bonding (8 items,  $\alpha = .80-.85$ ), management (14 items,  $\alpha = .78-.83$ ), conflict (5 items,  $\alpha = .67-.77$ )
- School: achievement (3 items,  $\alpha = .93-.96$ ), bonding (4 items,  $\alpha = .64-.72$ )
- Peers: negative peer behavior (7 items,  $\alpha = .67-.92$ ), positive peer behavior (3 items,  $\alpha = .75-.82$ )
  - Academic achievement grade 5-8 based on teacher report annually in spring
  - All other measures based on student report annually in spring

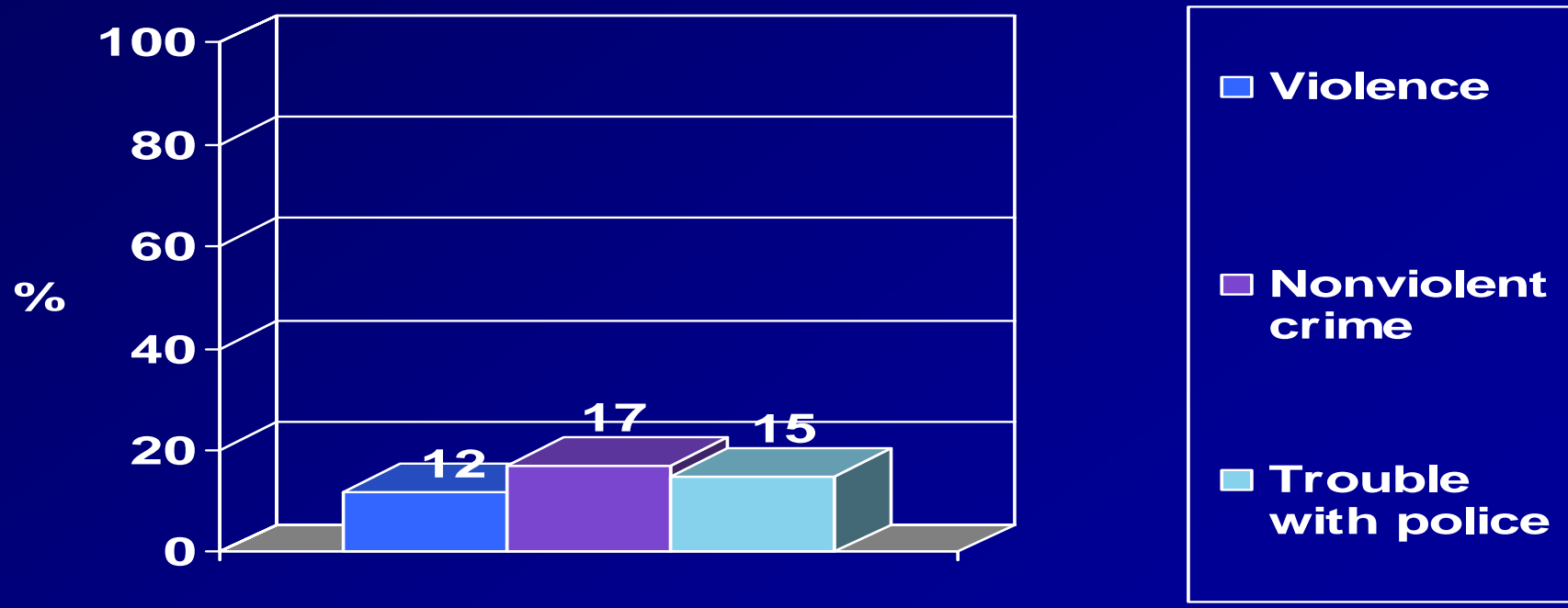


# Covariates

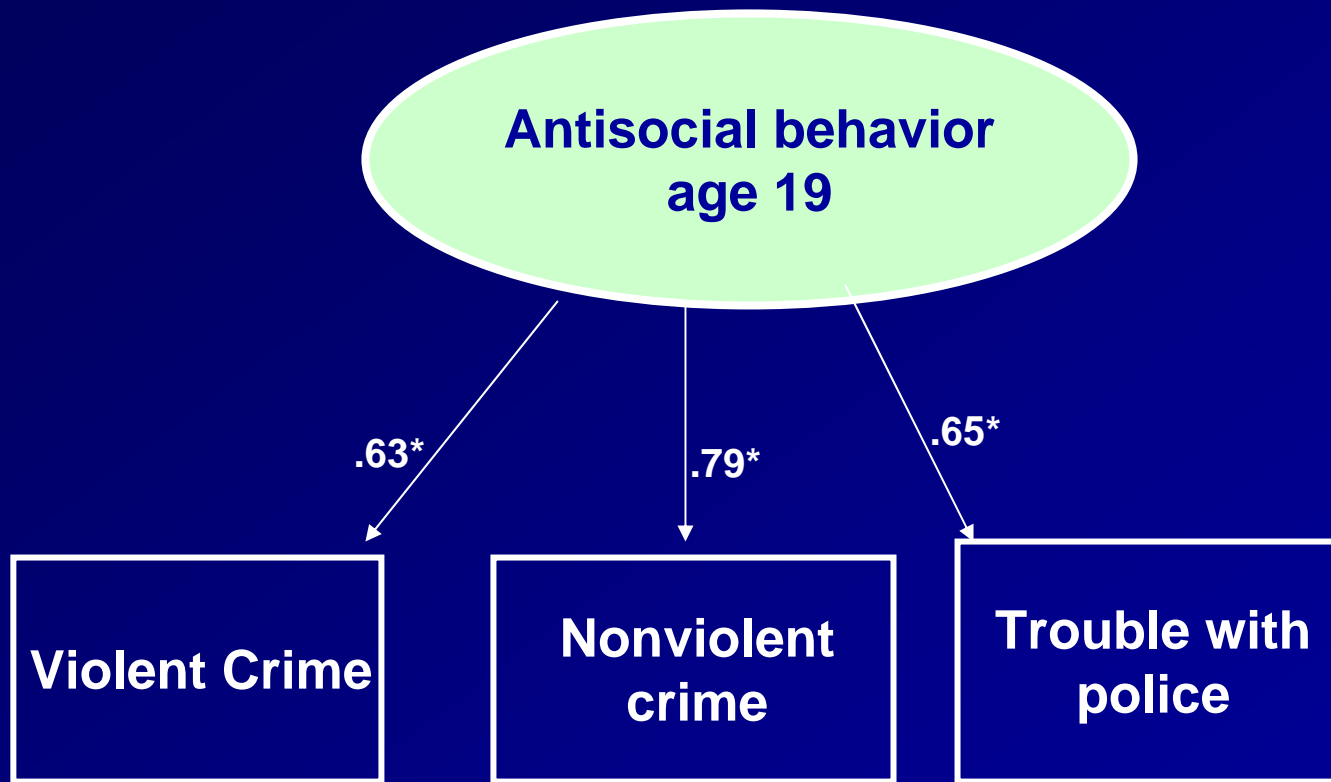
- Gender
- Experimental condition
- Low-income and single-parent status at 5<sup>th</sup> grade
- Race/ethnicity (dummy variables representing white, asian, and other)
- Grade cohort
- Teacher report of antisocial/disruptive behavior in 5<sup>th</sup> grade (10 item scale, TOCA-R, alpha=.91)
- Residential and college status

- Latent Growth Models of family, school and peer environments in early (grade 5-8) and late (grades 9-12) adolescence
- Latent variable of violent, non-violent and police contact post high school regressed on growth factors, adjusting for covariates

# Antisocial Behavior One Year Post High School Year



# Measurement Model for Antisocial Behavior



\*p<.05

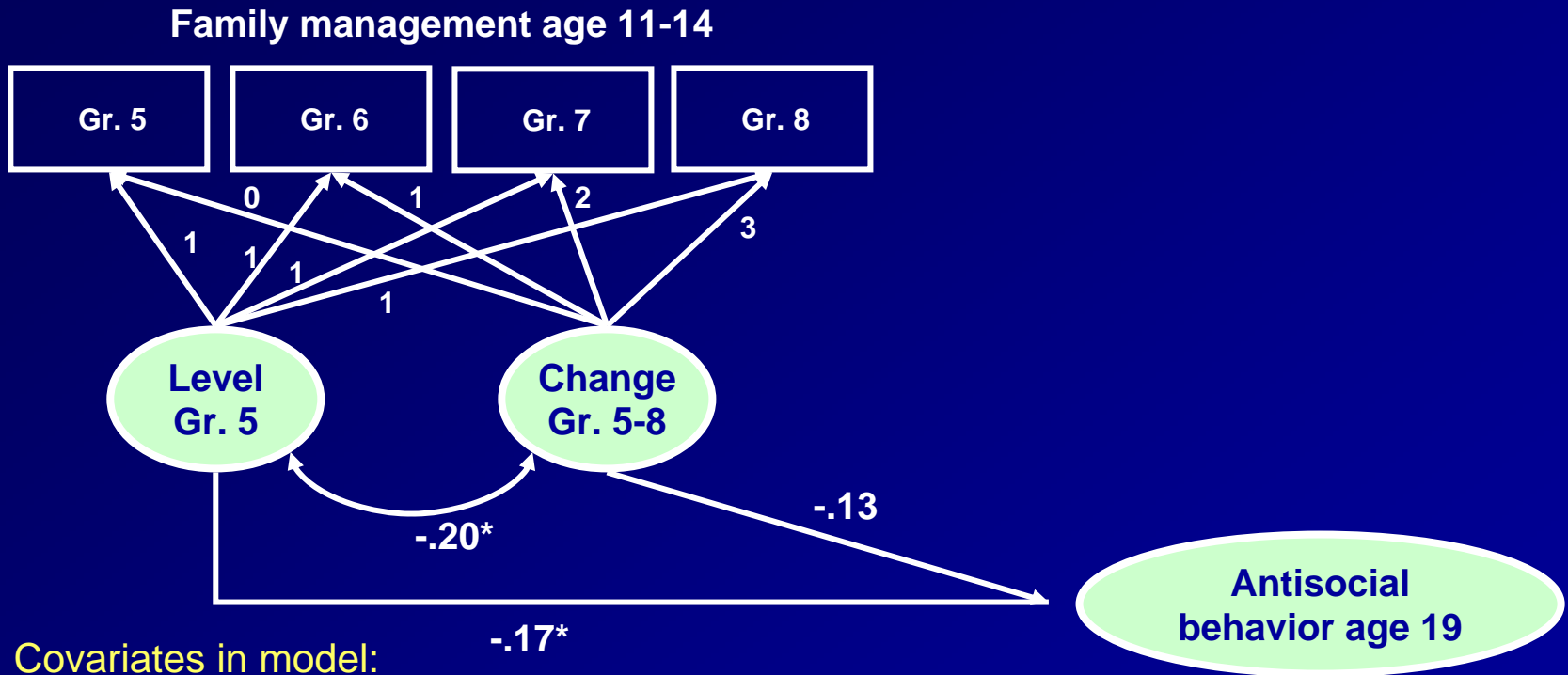


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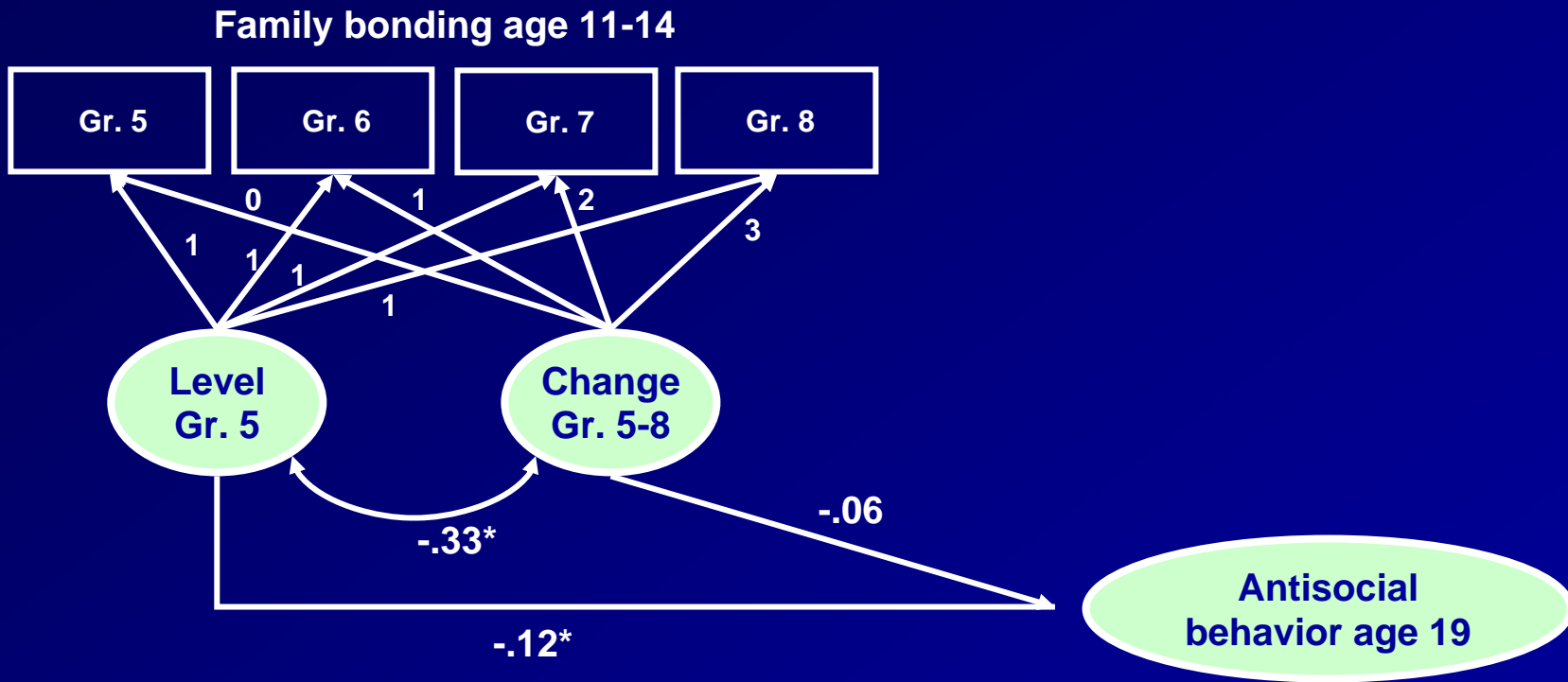
# Early Adolescent Family Management Predicting Age 19 Antisocial Behavior



- Covariates in model:
- Gender
  - Experimental condition
  - Low-income
  - Single-parent status
  - Race/ethnicity
  - Grade cohort
  - Antisocial/disruptive behavior
  - Residential and college status

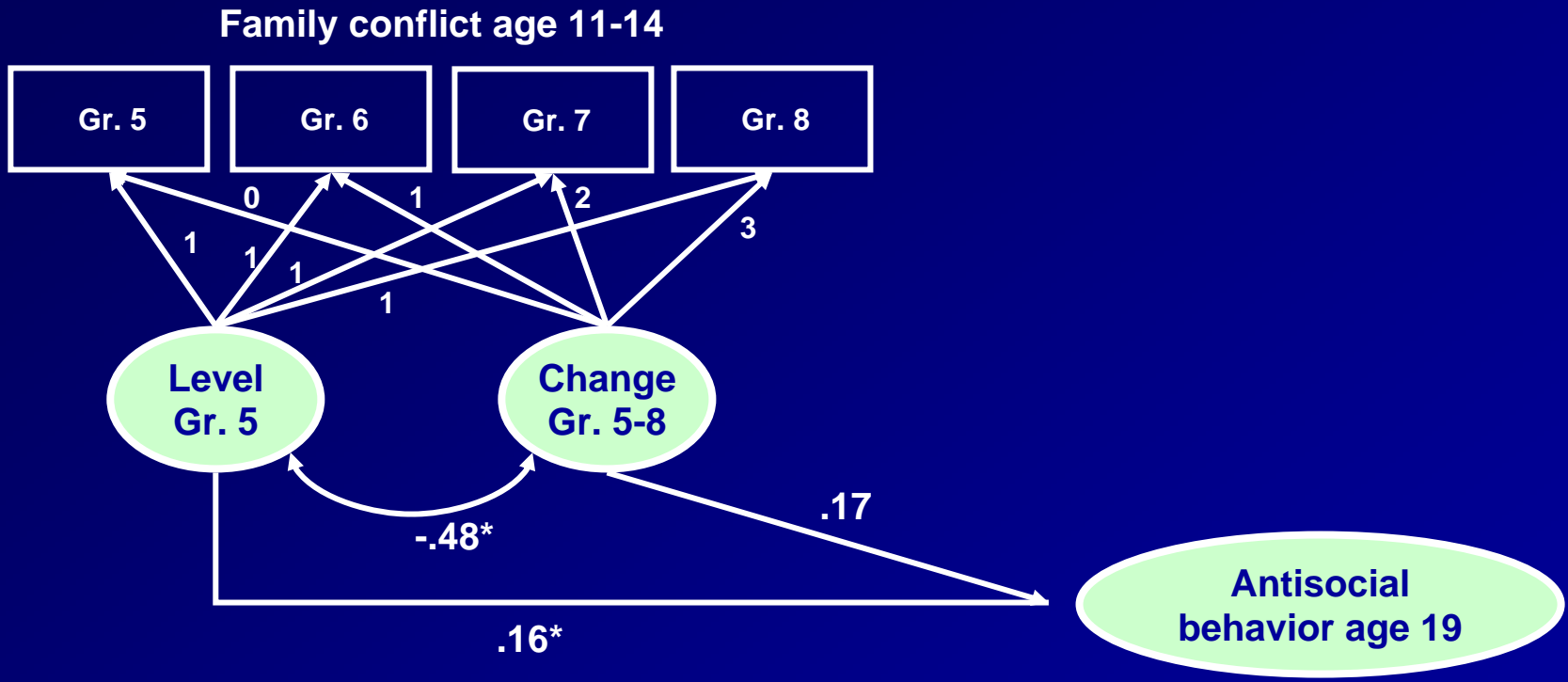
\* $p < .05$

# Early Adolescent Family Bonding Predicting Age 19 Antisocial Behavior



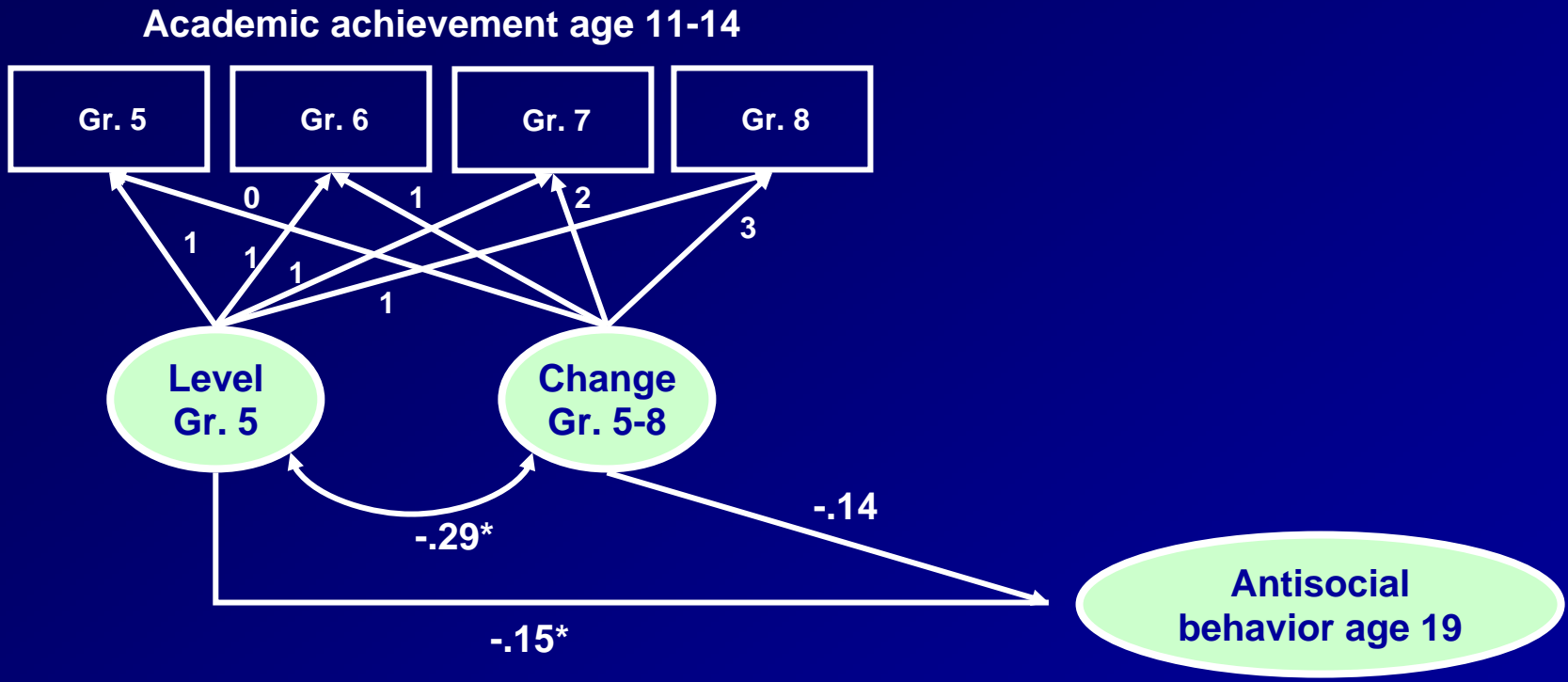
\* $p < .05$

# Early Adolescent Family Conflict Predicting Age 19 Antisocial Behavior



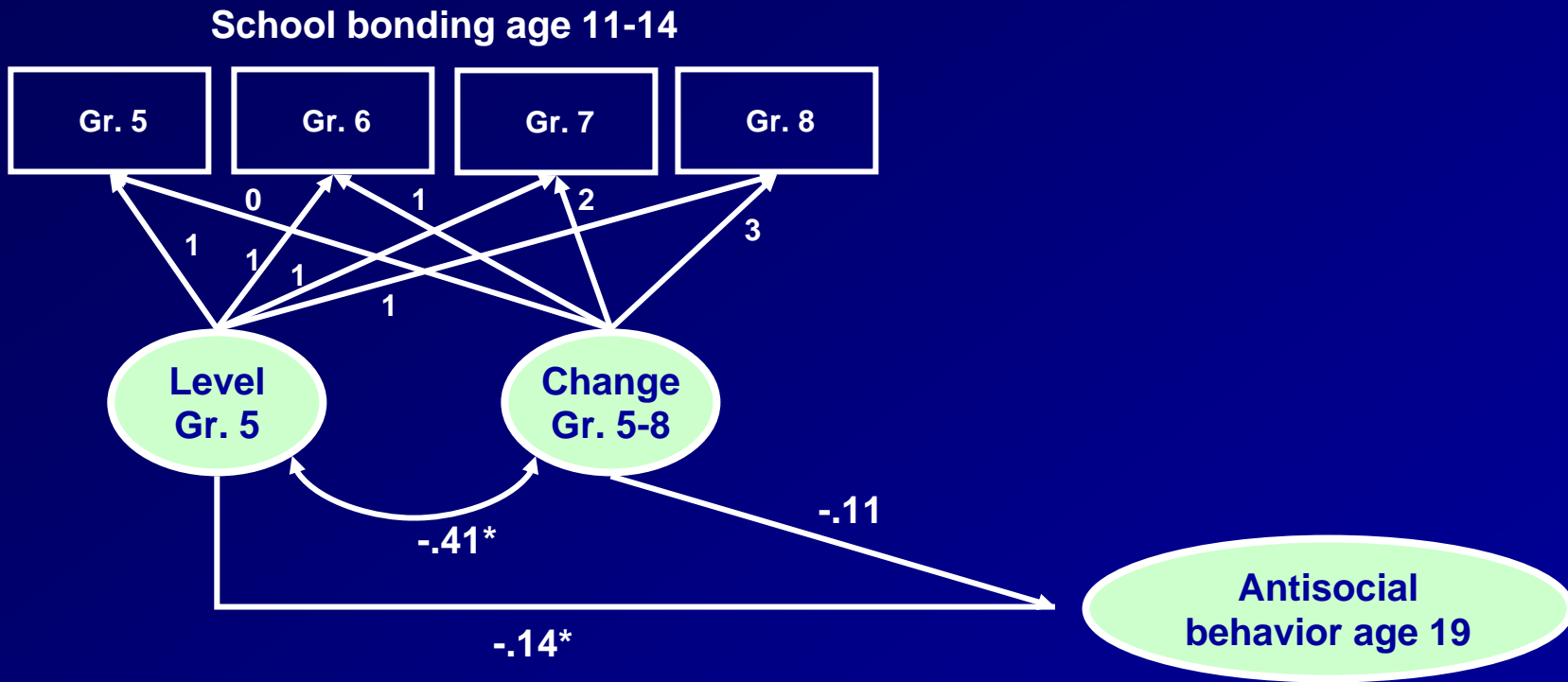
\* $p < .05$

# Early Adolescent Academic Achievement Predicting Age 19 Antisocial Behavior



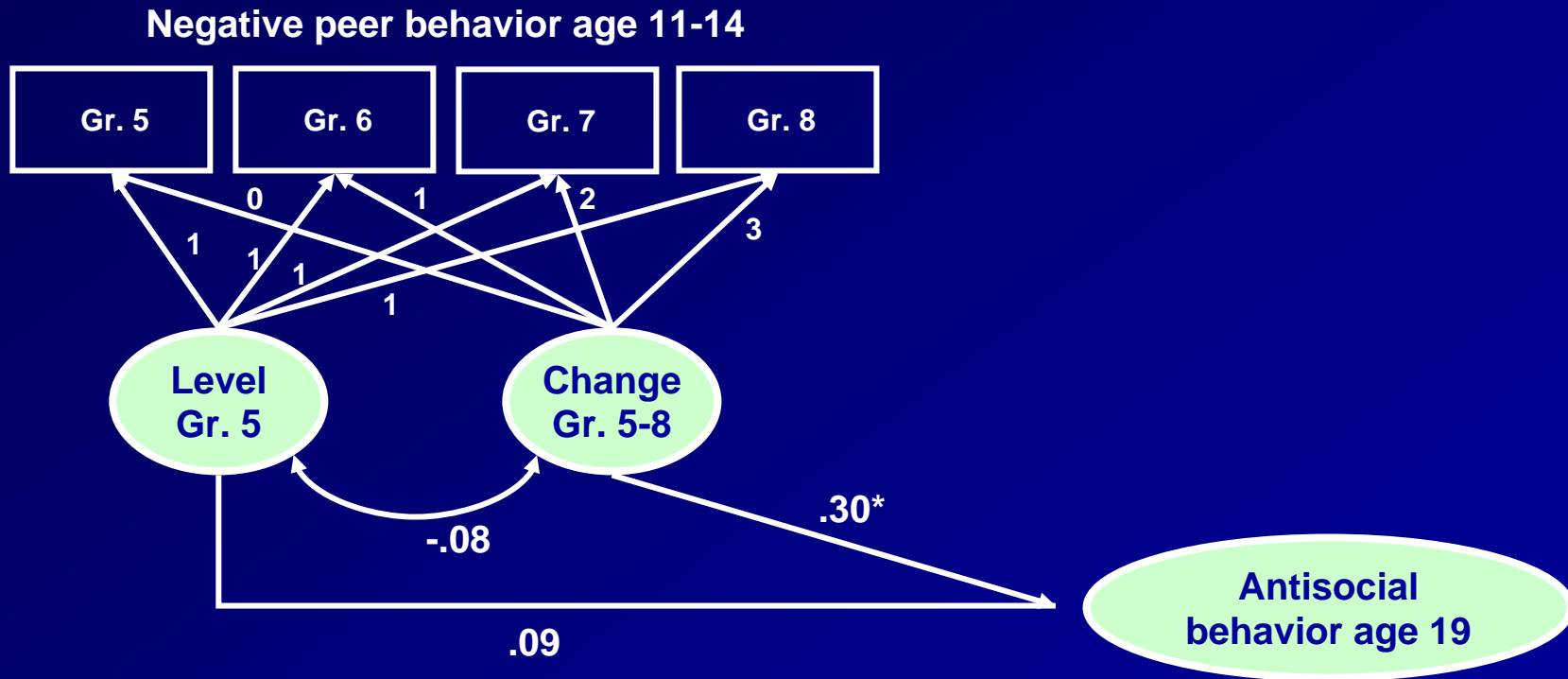
\* $p < .05$

# Early Adolescent School Bonding Predicting Age 19 Antisocial Behavior



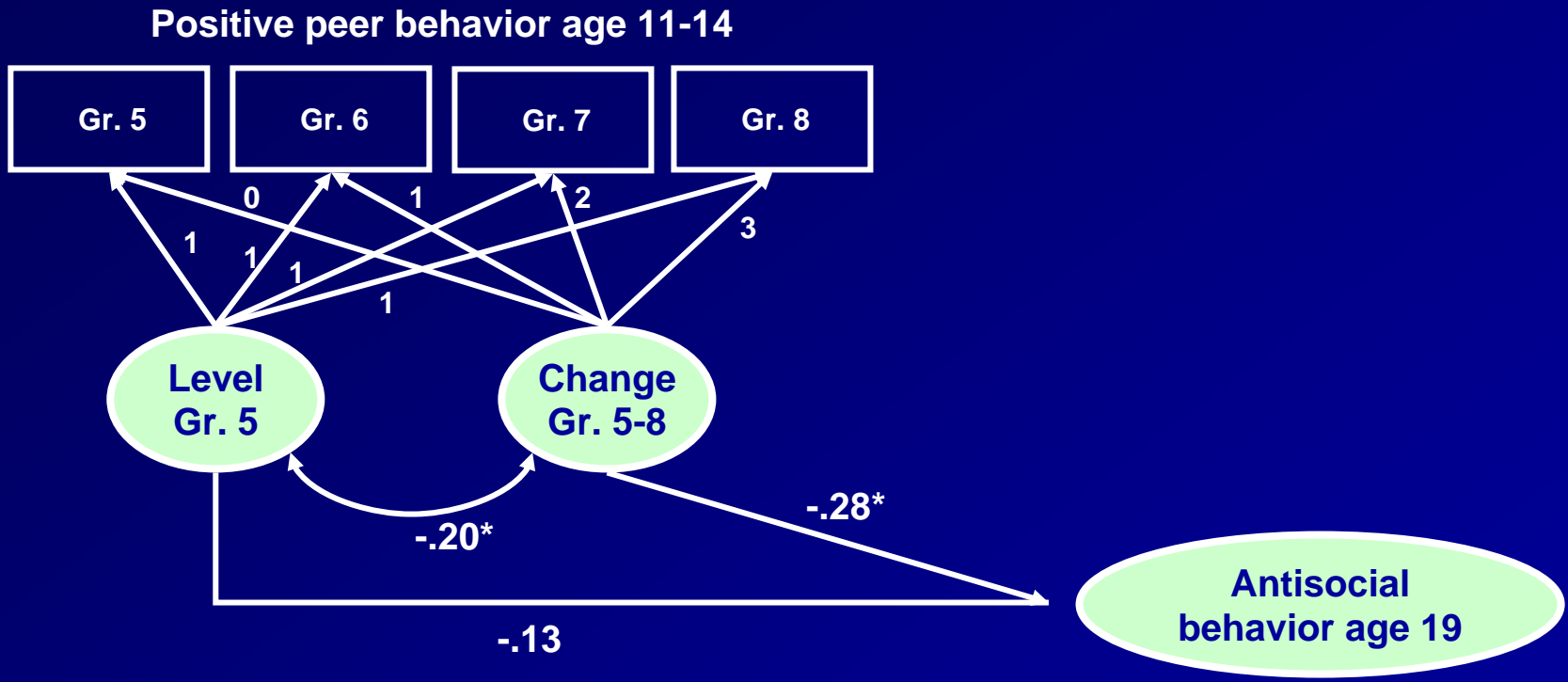
\* $p < .05$

# Early Adolescent Negative Peer Behavior Predicting Age 19 Antisocial Behavior



\*p<.05

# Early Adolescent Positive Peer Behavior Predicting Age 19 Antisocial Behavior



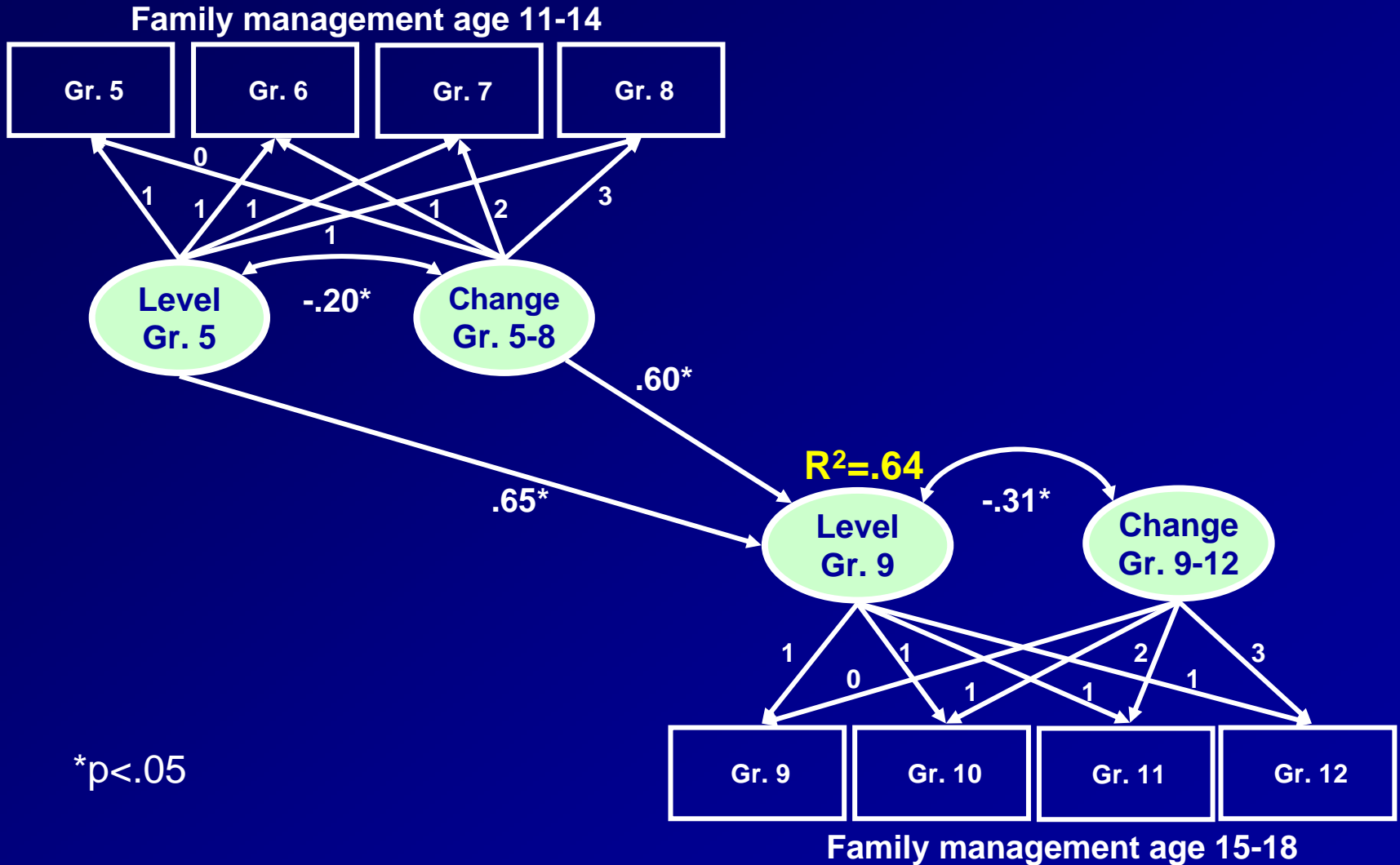
\*p<.05



# Research Questions

- Do level and change in social environments during early adolescence period predict age 19 substance use?
- How are social environments in early adolescence related to social environments in late adolescence?
- Do level and change in social environments during late adolescence predict age 19 substance use?

# Family Management Early Adolescence to Late Adolescence





# Early Adolescent Social Environment Predicting Late Adolescent Social Environment

	<b>Gr. 5 level to gr. 9 level</b>	<b>Change gr. 5-8 to gr. 9 level</b>	<b>R<sup>2</sup> for gr. 9 level</b>
<b>Family management</b>	<b>.65</b>	<b>.60</b>	<b>.64</b>
<b>Family bonding</b>	<b>.76</b>	<b>.58</b>	<b>.62</b>
<b>Family conflict</b>	<b>.93</b>	<b>.72</b>	<b>.74</b>
<b>Academic achievement</b>	<b>.62</b>	<b>.57</b>	<b>.50</b>
<b>School bonding</b>	<b>.78</b>	<b>.71</b>	<b>.65</b>
<b>Negative peer behavior</b>	<b>.41</b>	<b>.77</b>	<b>.71</b>
<b>Positive peer behavior</b>	<b>.80</b>	<b>.77</b>	<b>.66</b>

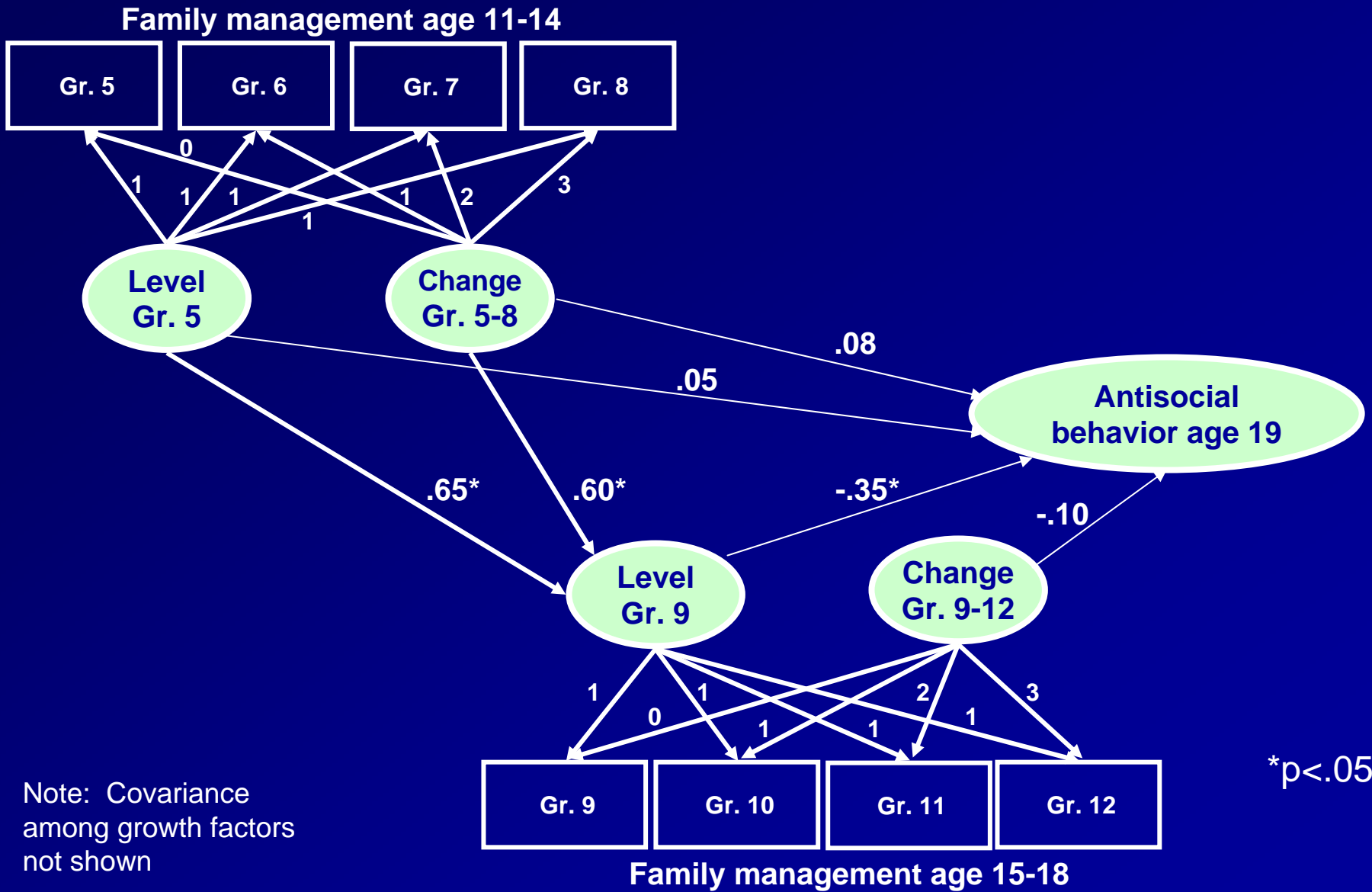
All significant at  $p < .05$



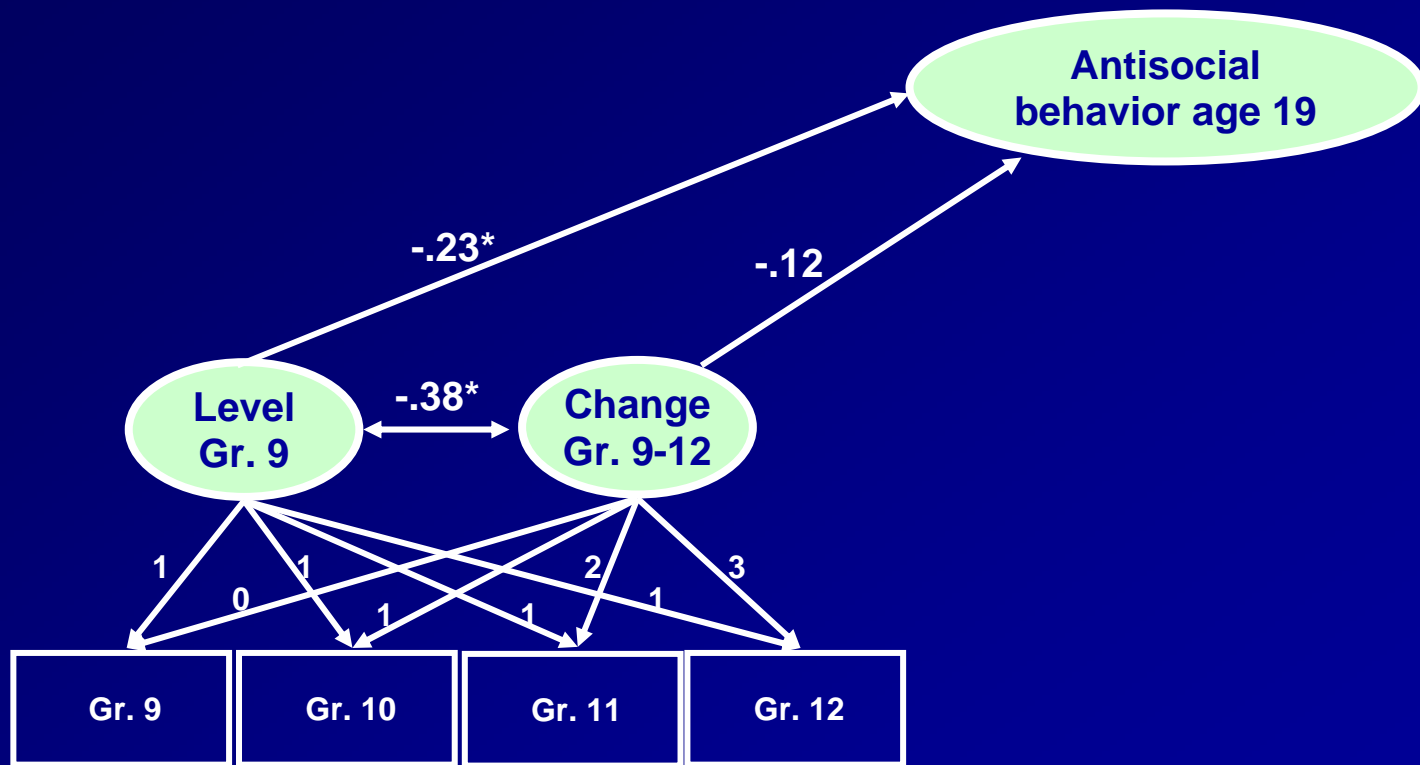
# Research Questions

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**S D** Family Management "Saturated" Model  
**R G** Predicting Age 19 Antisocial Behavior



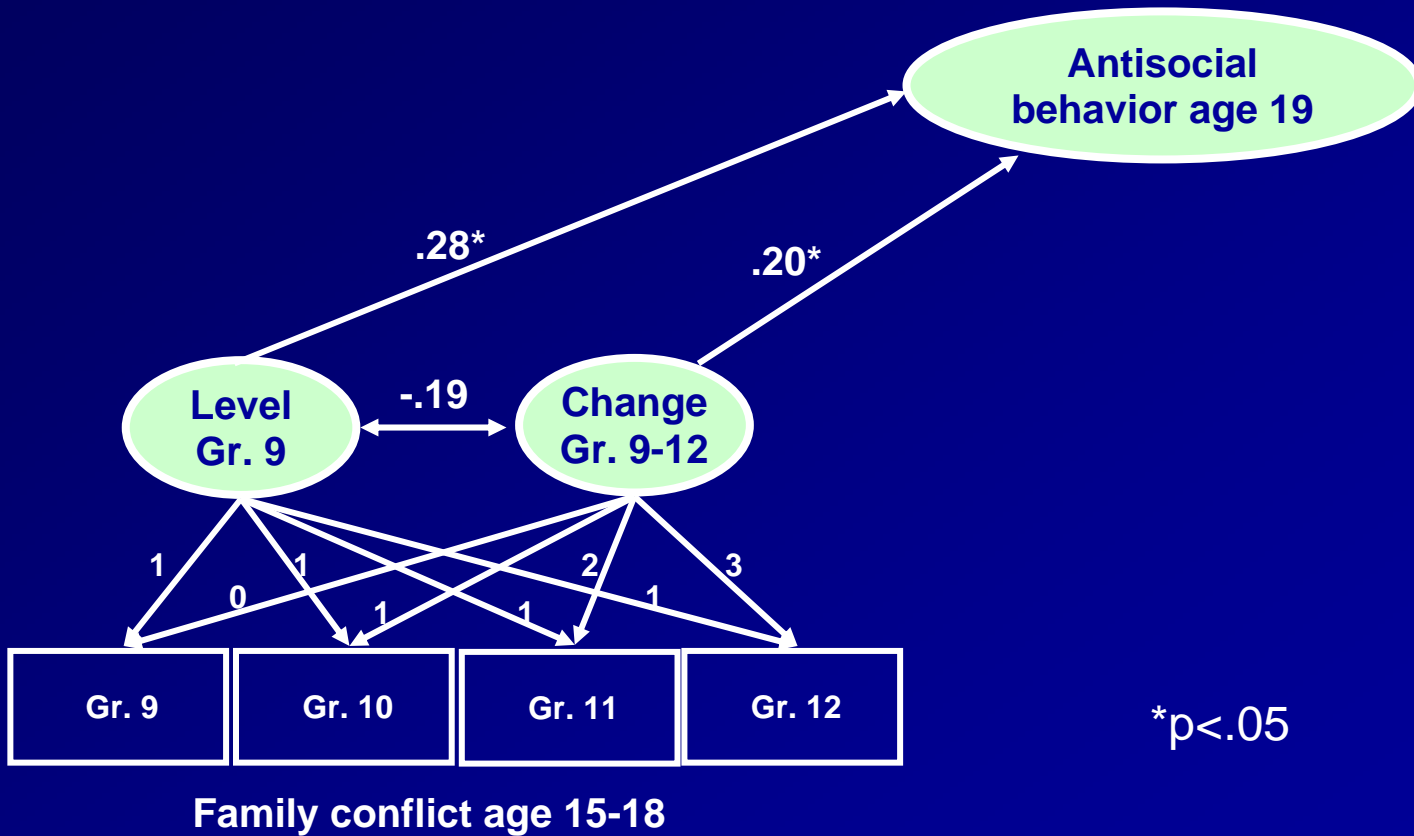
# Late Adolescent Family Bonding Predicting Age 19 Antisocial Behavior



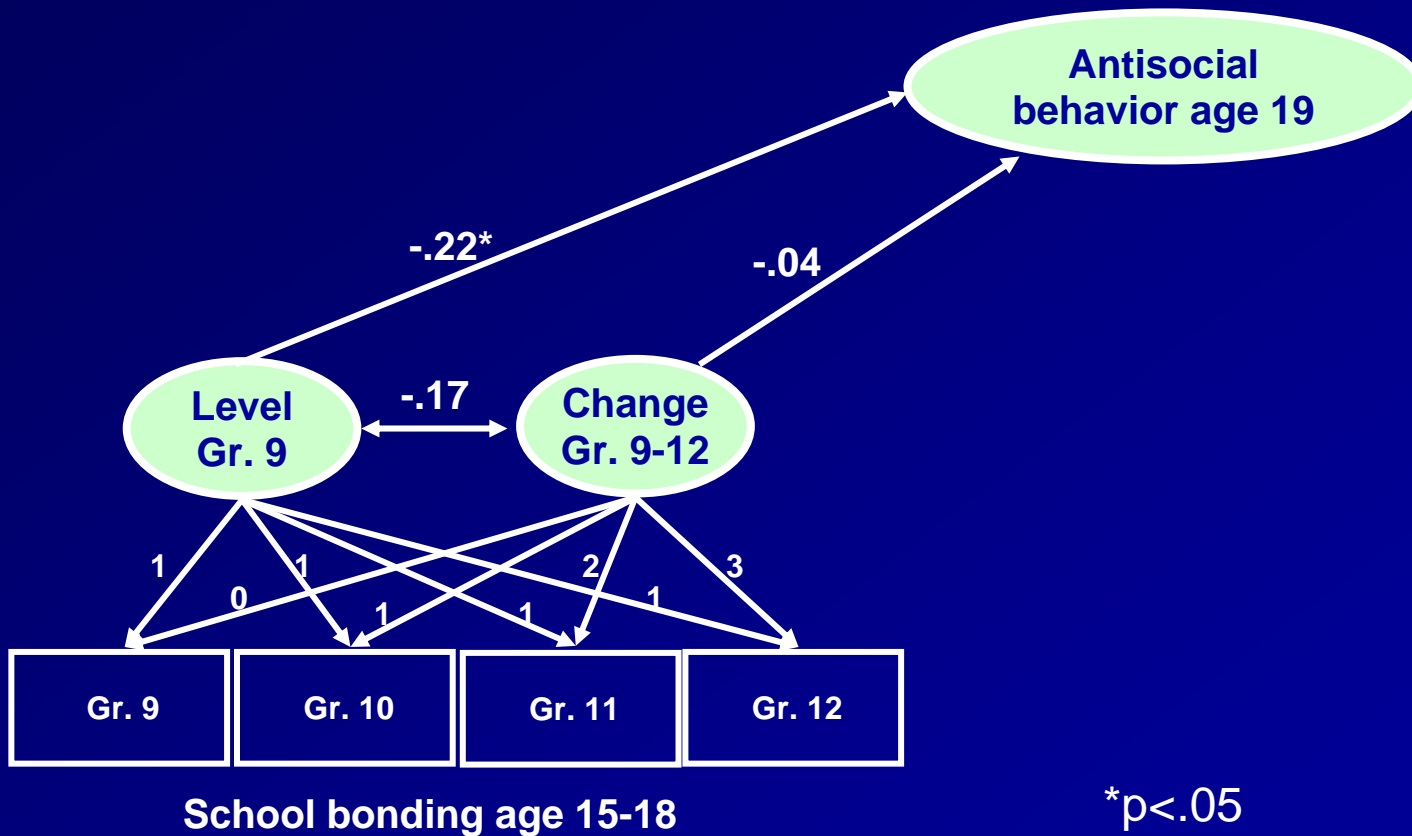
Family bonding age 15-18

\* $p < .05$

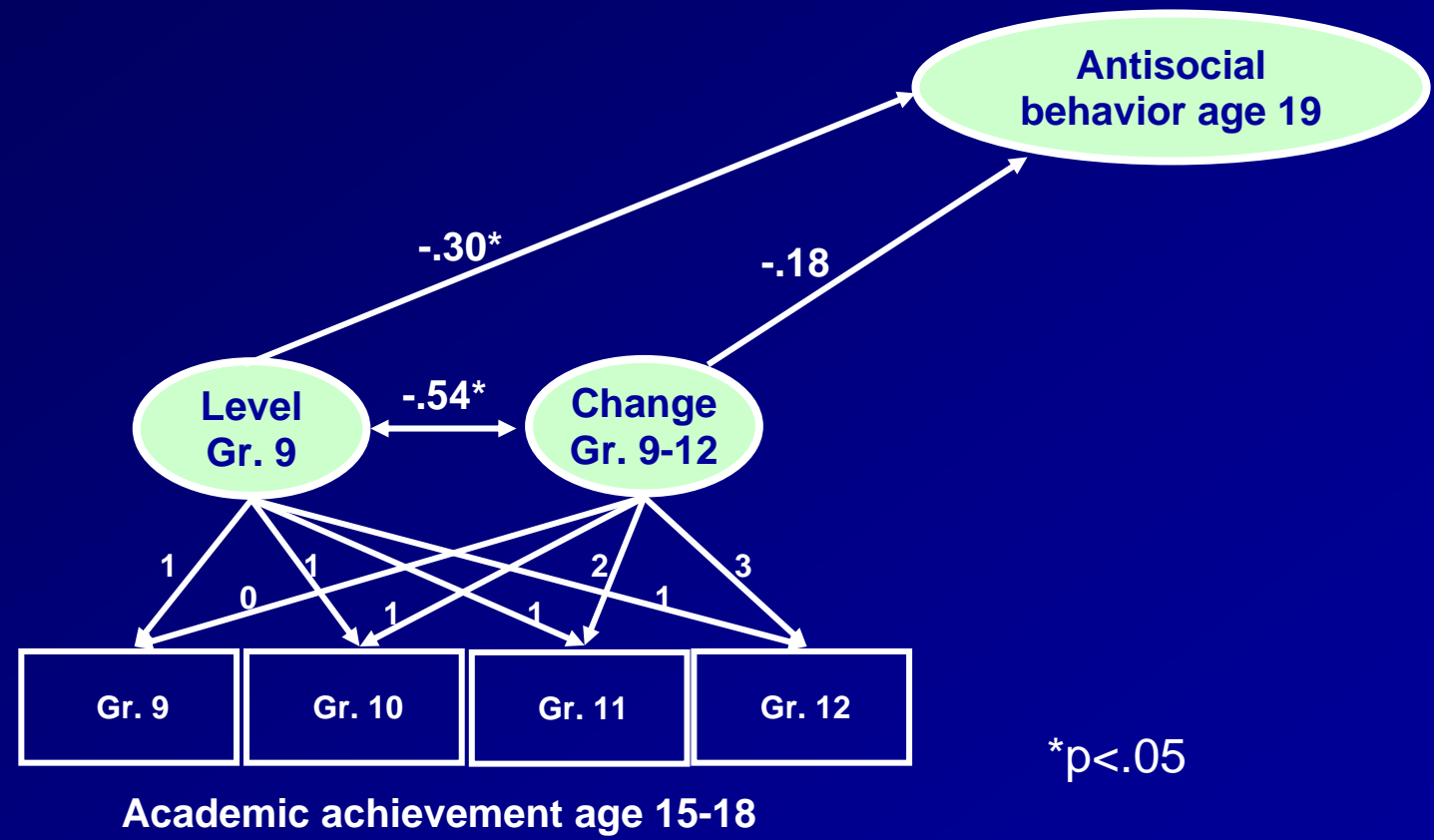
# Late adolescent Family Conflict Predicting Age 19 Antisocial Behavior



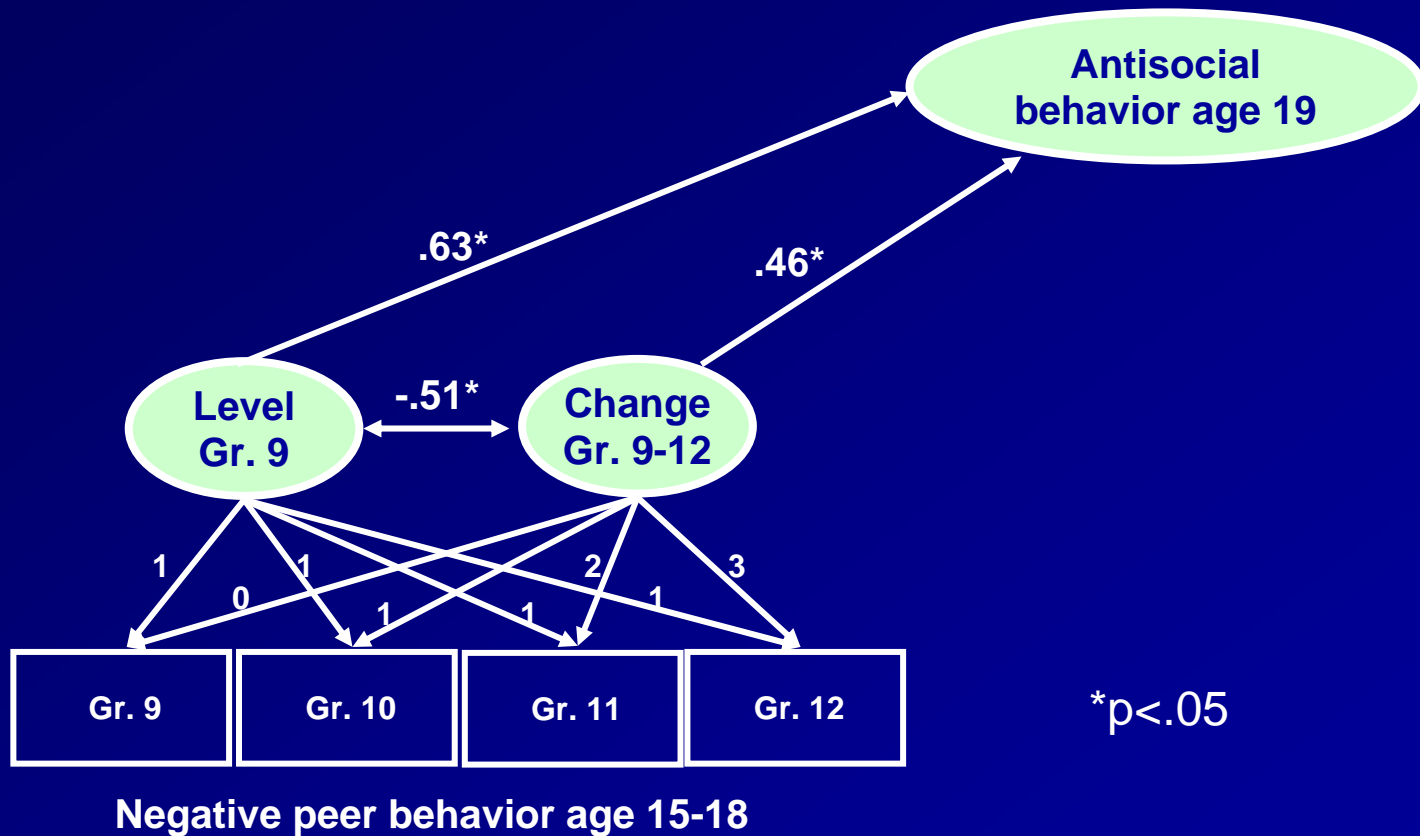
# Late Adolescent Bonding to School Predicting Age 19 Antisocial Behavior



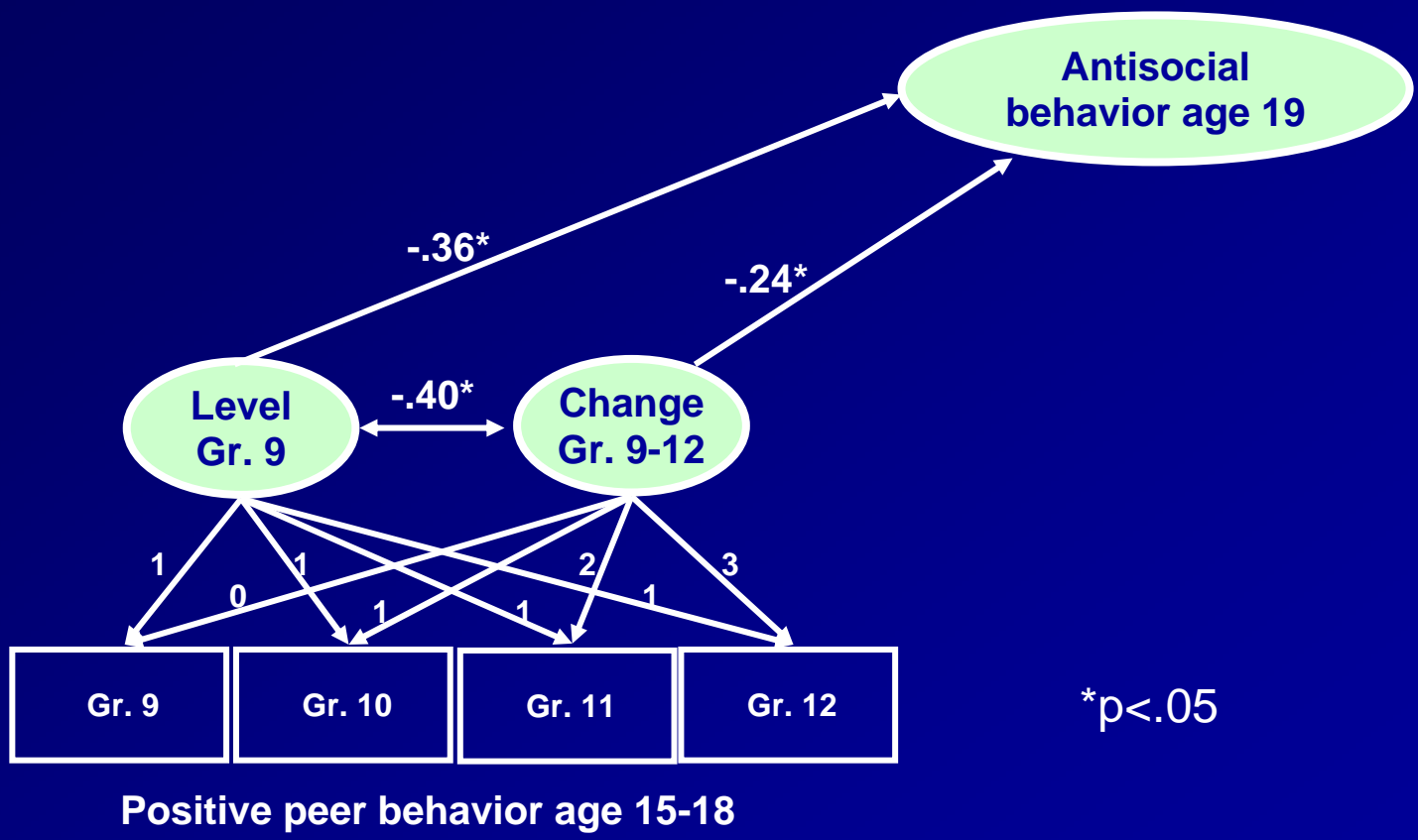
# Late Adolescent Achievement Predicting Age 19 Antisocial Behavior



# Late Adolescent Negative Peer Behavior Predicting Age 19 Antisocial Behavior



# Late Adolescent Positive Peer Behavior Predicting Age 19 Antisocial Behavior



# Summary

## ❖ Family and School environments

- ↪ Level of family and school social environments at grade 5 and grade 9 predict age 19 antisocial behavior
- ↪ Increasing family conflict during late adolescence independently predicts age 19 antisocial behavior

## ❖ Peer environments

- ↪ Level of peer environments at grade 5 not predictive, but increases in positive or negative peers in early adolescence predicts age 19 antisocial behavior
- ↪ Level of and increases in positive and negative peers in late adolescence predicts age 19 antisocial behavior
- ↪ Both negative as well as positive peer influence age 19 antisocial behavior



# Summary

- ❖ Social environment level and change in early adolescence predicts level of 9<sup>th</sup> grade social environment showing strong continuity
- ❖ Level of 9<sup>th</sup> grade social environment mediates the effect of early adolescent social environment on age 19 antisocial behavior



# Next Steps

- ❖ Examine impact of multiple social environments simultaneously
- ❖ Examine individual heterogeneity in level and change in social environments

# Prevention Implications

- ❖ Confirmation that family management, bonding and conflict provide promising targets for early prevention
  - ↳ Prevention programs targeting family conflict in late adolescence may also contribute to reduced problem behavior.
- ❖ Confirmation that school bonding and academic achievement provide promising targets for early prevention
- ❖ Confirms that positive and negative peers become important predictors later in development.
  - ↳ Prevention programs targeting positive and negative peer influence in early and late adolescence may contribute to reduced problem behavior



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