

Smoking Escalation, Smoker Identity, and Peer Influence Among Adolescents

Andrew W. Hertel, Ph.D. and Robin J. Mermelstein, Ph.D.
University of Illinois at Chicago, Institute for Health Research and Policy

Trying vs. Escalating Smoking

- 40% of 12th graders have smoked a cigarette at least once in their lifetime^A
 - Q: What are the psychological factors?
 - A: External factors, namely peer influence



^AMTF: Johnson et al., 2011

Trying vs. Escalating Smoking

- 10% of 12th graders smoke cigarettes on a daily basis^A
 - Q: What are the psychological factors?
 - A: Peer influence? Nicotine dependence?^{B, C, D}
 - *A: Internal factors, such as **smoker identity***^E

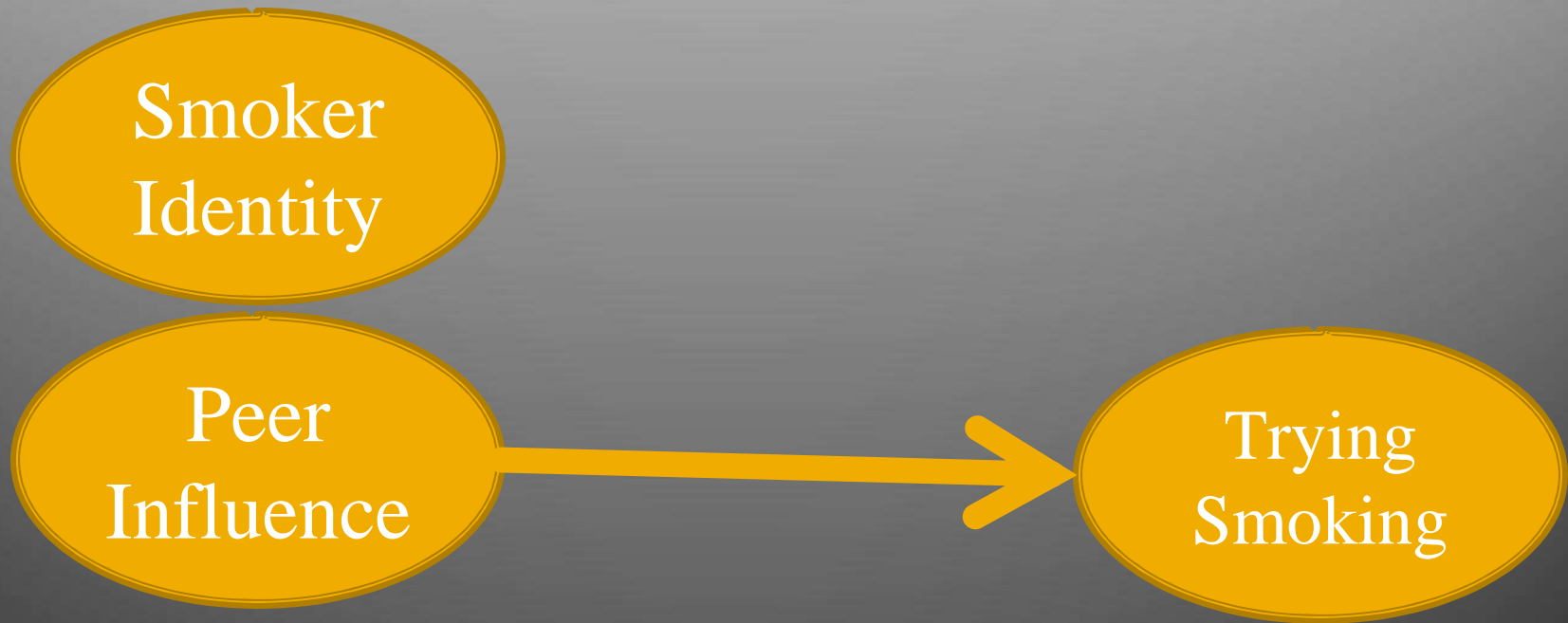
^AMTF: Johnson et al., 2011; ^BColby et al., 2000; ^CArnett, 2000; ^DMayhew et al., 2000; ^EHertel & Mermelstein, in press

Smoker Identity, Defined

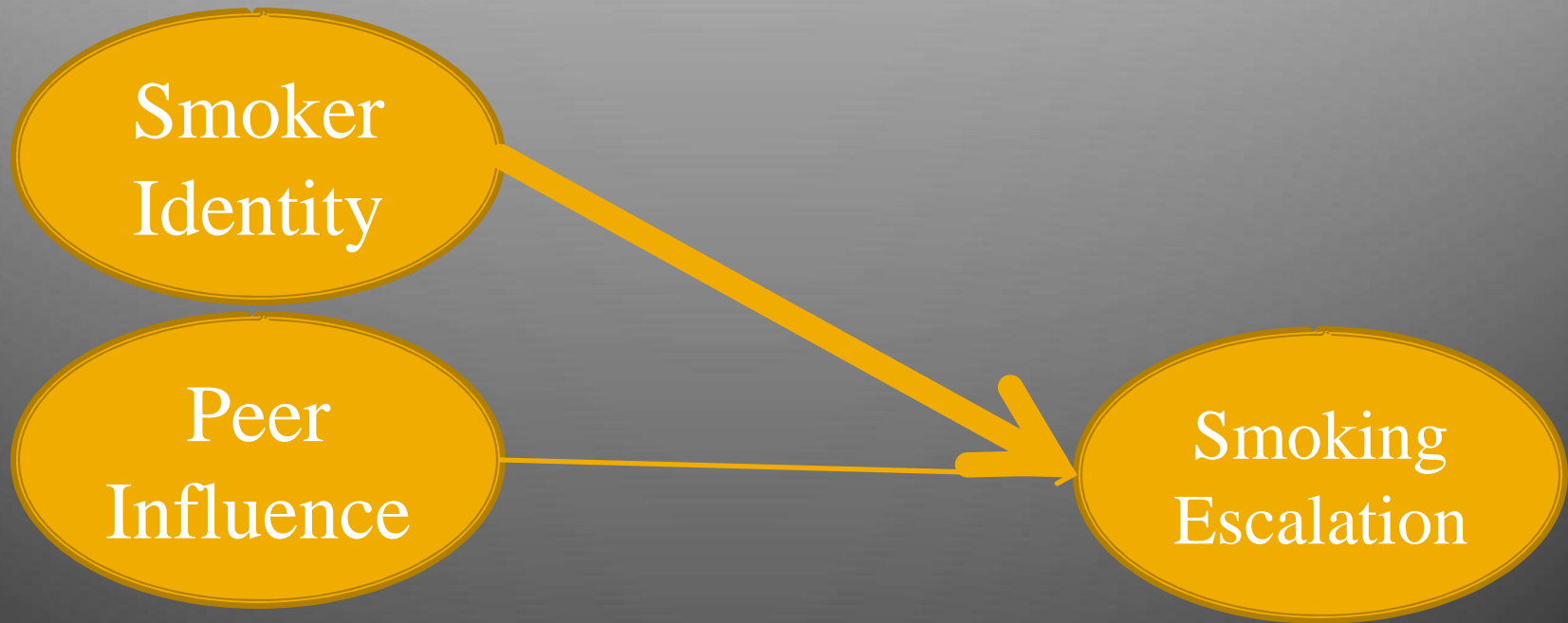
- For people who have smoked, internalization of smoking behavior such that it is a defining aspect of who they are
 - It is a belief about the self
 - *“I am a smoker”* (vs. “I smoke”)



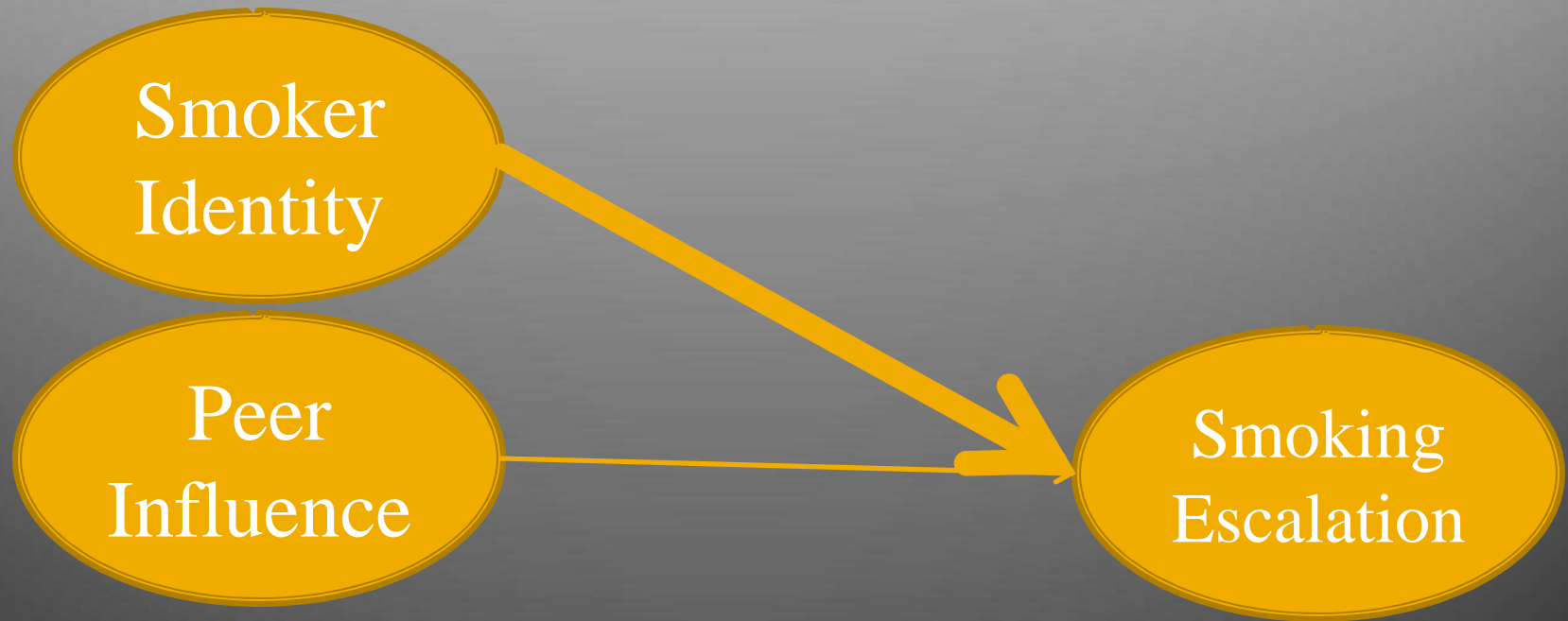
Smoking Escalation and Smoker Identity



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The influence of smoker identity should be particularly salient during a time of social environment change

Longitudinal Study on Adolescent Smoking Escalation

- Chicago-area adolescents ($n = 1036$)
 - All had smoked at least once in their life prior to the beginning of the study are included in analyses
 - Age
 - $M = 15.7$ years old
 - Gender
 - 56.1% Female
 - Ethnicity
 - 55.8% White, 18.9% Hispanic, 15.8% Black, 3.4% Asian, 6.1% “other”



PIECE by PIECE
Making Health Connections

Participant Survey

Thank you for your continued participation in "Piece by Piece: Making Health Connections," a research study about young adults and cigarette smoking. You will be asked to answer questions about smoking, the kinds of activities you do, your feelings, your family and background, and other health behaviors. Your honest answers will help us better understand what life is like for young adults today.

36. How many of your 5 closest friends would approve if you smoked a cigarette?

(1) None	(3) 2	(5) 4
(2) 1	(4) 3	(6) 5

37. How often are you around friends while they're smoking cigarettes?

(1) Not at all	(2) A little	(3) A lot
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47. How much is being a smoker part of who you are?

(1) Not at all	(3) Somewhat
(2) A little	(4) A lot

50. How important are cigarettes in your life?

(1) Not at all important	(4) Very important
(2) Not very important	(5) The most important
(3) Somewhat important	

58. About how many cigarettes have you smoked in your entire life?

(1) 500 or more
(2) 100 or more cigarettes (5 or more packs)
(3) 26 to 99 cigarettes (more than one pack, but less than 5 packs)
(4) 16 to 25 cigarettes (about 1 pack total)
(5) 6 to 15 cigarettes (about ½ pack total)
(6) 2 to 5 cigarettes
(7) 1 cigarette

Adolescent Smoking Study – Measures

Variable	BL	6 months	15 months	24 months	33 months
Smoking Behavior	X	X	X	X	X
Smoker Identity	X	X	X	X	
Peer Influence	X	X	X	X	

Adolescent Smoking Study – Measures

Variable	BL	6 months	15 months	24 months	33 months
Smoking Behavior	X	X	X	X	X
Smoker Identity	X	X	X	X	
Peer Influence	X	X	X	X	
Social Environment Change					X

Adolescent Smoking Study – Measures

Variable	Scale Information	
Smoking Behavior	# days smoked in past 30 days	“Now think about the past 30 days. On how many days did you smoke or try cigarettes?”
Smoker Identity	2 items, 1-5 scale $\alpha = .61 - .70$	<i>Extent of identity</i> : “How much is being a smoker part of who you are?” “How important are cigarettes in your life?”
Peer Influence	5 items, 1-6 scale $\alpha = .81 - .85$	<i>Exposure/Approval</i> : “How often are you around friends while they are smoking cigarettes?” “How many of your 5 closest friends would approve if you smoked a cigarette?”
Social Environment Change	0 = in h.s. 1 = not in h.s.	“What best describes your current schooling/educational status”

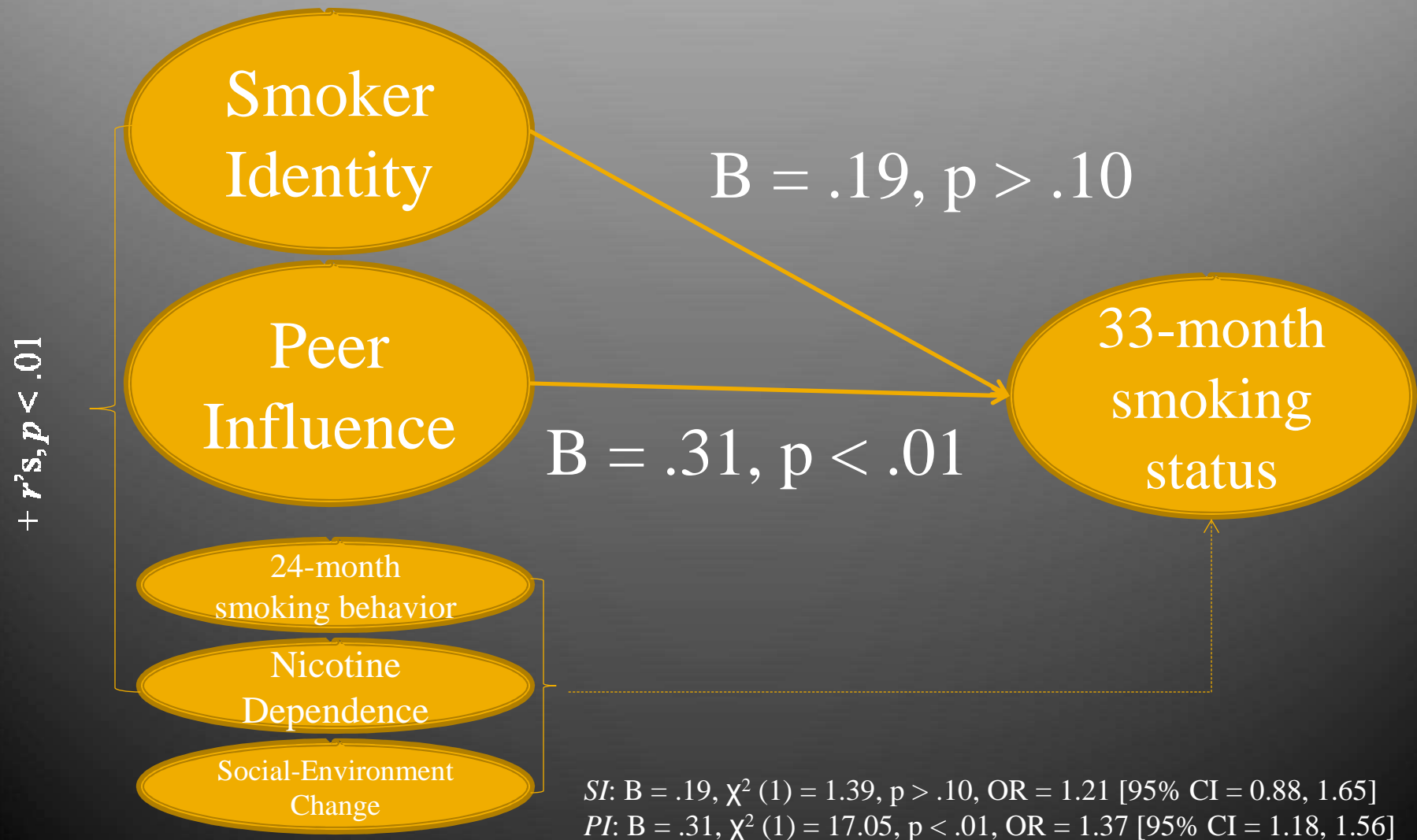
Adolescent Smoking Study – Measures

Variable	BL	6 months	15 months	24 months	33 months
Smoking Behavior	4.68	5.35	6.72	7.72	10.09 (57.8% > 0)
Smoker Identity	1.65	1.59	1.65	1.69	
Peer Influence	3.76	3.77	3.88	3.99	
Social Environment Change					0 = 43.15% 1 = 56.85%

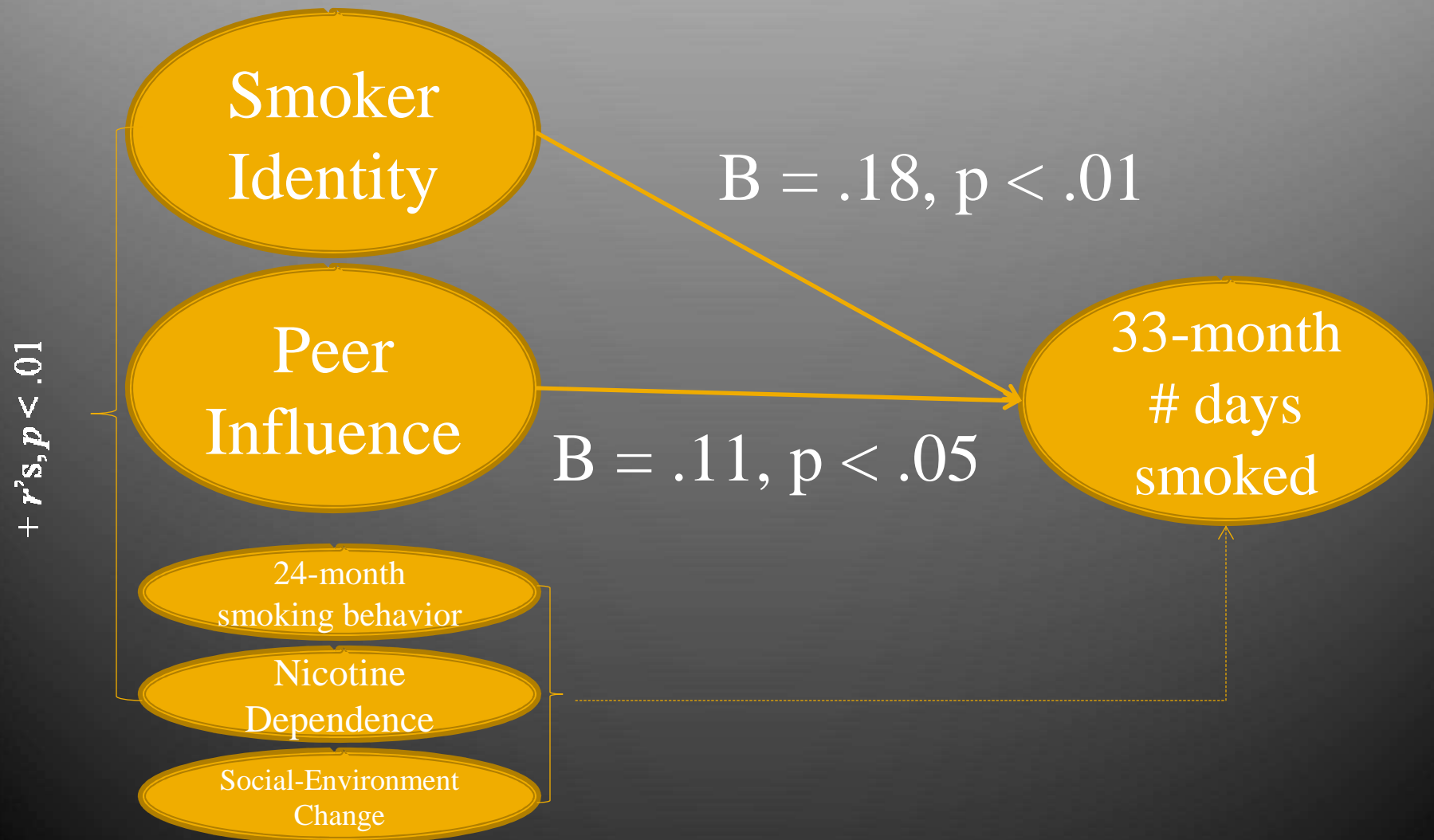
Predicting Change in Smoking Behavior from 24- to 33-months

- Prediction: Smoker identity is a stronger positive predictor than peer influence of changes in smoking behavior from 24- to 33-months
 - Due to non-normal distribution of 33-month smoking behavior, in a two-step process we predicted:
 - 1) Change in status among all participants
 - 0 = had not smoked in the past 30 days, 1 = had smoked in the past 30 days
 - 2) Change in number of days smoked among those who reported smoking at 33-months
 - Square-root transformed

Predicting Change in Smoking Behavior from 24- to 33-months



Predicting Change in Smoking Behavior from 24- to 33-months



Smoking Escalation, Smoker Identity, and Peer Influence

- Both smoker identity and peer influence predicted smoking escalation even during a time of social-environment change, but there is reason to believe that smoker identity was the stronger predictor of escalation
 - Peer influence effects may actually reflect peer selection driven by smoker identity

Smoking Escalation, Smoker Identity, and Peer Influence

- Factors of smoking escalation are different from factors of trying smoking
 - External factors, such as peer influence, contribute more strongly to trying smoking, whereas internal factors, such as smoker identity, contribute more strongly to smoking escalation
- Intervention efforts and rational psychological models applied to smoking among adolescents should take this into consideration

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