

## **Socio-Contextual Basis of Adolescent Risk Taking**

### **I. INTRODUCTION**

#### **A. Model of Adolescent Risk Taking**

- So far we have considered adolescent risk taking from the perspective of their:
  - Genetic Heritage
    - Evolutionary pressures
    - Behavioral Genetics
  - Biological changes at adolescence
    - Hormonal changes
    - Neurological changes
  - Psychology Processes
    - Rational regulatory processes
    - Moral regulatory processes

### **I. INTRODUCTION**

#### **B. Limits of the Factors**

- But these factors seem to offer only a limited understanding adolescent risk taking
  - The Genetic and Biological accounts of adolescent risk taking was only moderately helpful.
    - Hormones and Hereditary seem to matter but are insufficient to account for all adolescents' risk taking.
    - Neurologically, adolescence is window of vulnerability, but great variation in who is affected.
  - The Psychology account seem present adolescents as incompletely regulated
    - Adolescents are capable of rational and moral regulation, but situational and developmental factors play a role in whether they will activate such processes.

### **I. INTRODUCTION**

#### **C. Nature of Adolescent Risk Taking**

- Genetic, biological, and psychological factors play a role in adolescent risk taking but are not sufficient to account for the phenomenon completely.
  - Under what conditions did you and others commit youthful indiscretions?
    - Family conditions
    - Peer groups
    - School structure and nature
    - Neighborhood characteristics
    - Cultural values
    - Epoch

## I. INTRODUCTION

### C. Nature of Adolescent Risk Taking

- Adolescent risk taking may result from Genetic, Biological, and Psychology factors interacting with external, environmental or contextual ones.
  - We have seen the importance of gene-environment interaction in the section on Scarr models.
    - Scarr showed how endogenous factors (genotypes) interact with exogenous factors (environment) to produce behavior (phenotypes).
  - We have seen the role of
  - The goal of today's' lecture is to outline the nature of the environment and how environmental contexts affect behavior.

## I. INTRODUCTION

### C. Nature of Adolescent Risk Taking

- The goal of today's' lecture is to outline the nature of the environment and how environmental contexts affect behavior.
- To explore the role of the environment in risk taking, we will examine
  - Bronfenbrenner's analysis of settings or contexts
  - Vygotsky's account of internalization.

## I. INTRODUCTION

### D. Contextual Theories

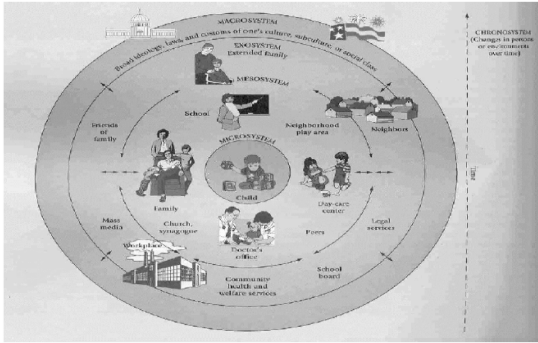
- Bronfenbrenner and Vygotsky are theories contextual theories, emphasizing the environment
  - Settings or contexts go beyond behaviorists' account of the environment.
  - Behaviorists fail to specify the relations people have with the persons, objects, and symbols in immediate settings, beyond them serving as models or reinforcers etc. and the larger contexts in which these settings are embedded.

## I. INTRODUCTION

### D. Contextual Theories

- Urie Bronfenbrenner's **ecological systems theory** views development contextually.
  - Individuals develop within a complex *system* of multiple embedded environmental levels
    - The **microsystem** is the innermost level of the environment and refers to activities and interaction patterns in the child's immediate environment.
    - The **mesosystem** is composed of connections among microsystems that foster children's development.
    - The **exosystem** contains contexts that do not include children but affect their experiences in microsystems.
    - The **macrosystem** is the outermost layer and includes a culture's laws, values, customs, and resources.
    - The model is embedded in the **chronosystem** which is the temporal dimension.

I. INTRODUCTION  
D. Contextual Theories



I. INTRODUCTION  
D. Contextual Theories

- Lev Vygotsky's **socio-cultural theory** focuses on how culture is transmitted from one generation to the next.
  - Development is viewed as a social process mediated by parental and peer support, as dictated by cultural values and traditions.
  - Children and adolescents are socialized into the cultural appropriate manner of thinking, feeling, and acting
    - Process of actively internalizing the tools of the culture such as language and other symbolic notations systems learned socially at home or school.

I. INTRODUCTION  
D. Contextual Theories

- Vygotsky's Conception of Mind
  - The mind originates in and is mediated by social interaction (direct experience vs. social mediation).
  - Depends on the socially engagement of the child or adolescent with others (as an apprentice to cultural authorities)
  - Such interactions are highly regulated by the socio-historical and cultural context of children or adolescents and their family, friends, and peers.
- Internalizing these interactions is the basis for the child's cognitive socialization into the culture.

II. CONTEXT OF RISK TAKING  
A. Person-in-Context

- Theoretical and empirical implications of adopting a contextual theory
  - Theoretically, contextual theories deny that the individual can be studied independently of the context in which they find themselves.
    - As a result, theories are not about individual biological, cognitive, or psychological functioning, but how the "person-in-context" functions.
  - Empirically, unit of analysis is the "person-in-context".
    - Studying the individual alone is such an unusual context that the results may have no bearing on predicting an adolescents' behavior with friends at schools etc.

## II. CONTEXT OF RISK TAKING

### B. Risk Taking in Context

- From a contextual perspective, risk taking is a behavior which finds its meaning in a social context.
  - Lightfoot (1993) acknowledges this by arguing that risk taking behavior has symbolic value by enhancing and maintaining one's social relations and concept of self.
    - One's peer group serves as a reference from whom the meaning and significance of the risk taking behavior is derived
- The view emphasizes the relations of the individual to the social context in risk taking.

## II. CONTEXT OF RISK TAKING

### B. Risk Taking in Context

- Lightfoot (1993) assessed social context on risk taking by examining the meaning of engaging in risks in various conditions
  - Would adolescents be more, less or as likely to smoking marijuana for the first time when its offered by a close friend vs. acquaintance?
    - Sharing adventure creates intimacy, but close friends thought to be more tolerant of non-confirming.
  - Would adolescents' peer relations improve by going to the beach during school, on Saturday, or with their parents?
    - Adolescents preferred anything to having family around and would feel closer to friends if they skipped school.

## II. CONTEXT OF RISK TAKING

### B. Risk Taking in Context

- Different patterns of risk taking may emerge out of adolescent social groups
  - Social groups are contexts for activities central for the development of self and participation in intimate social communication and symbolic actions.
  - Lightfoot (1993) further comments on how social practices in groups is central to the growth of self and identity in adolescents.
    - Citing Vygotsky (pp. 240-242) she claims that adolescents construct a personal "self" narrative out of social group activities, with adventures (risk and thrills) being pivotal in their dramas.

## II. CONTEXTUAL THEORIES

### B. Risk Taking in Context

- Lightfoot & Garipey (1999) assessed social groups to examine context effects on risk taking.
  - High school students were asked with whom they engage in risky or adventurous behavior and completed a risk behavior questionnaire.
    - On the basis of nominations, the researchers identified social groups, and identified group cohesion (reciprocal nominations within the group) and permeability (nominations made by and to those outside the group)
  - Notably one group was cohesive but not permeable, reflecting their isolation (outcasts), and the another was cohesive and permeable, reflecting their popularity (popular).

## II. CONTEXT OF RISK TAKING

### B. Risk Taking in Context

- The two groups differed in risk taking.
  - Adolescents in the popular and outcast groups were about equal in engaged in many relative inoffensive and expected risks.
    - These risks included sneaking out of house, fast driving, drinking alcohol, pulling pranks.
    - Some groups showed little risk taking and may be defining feature of such groups.
  - Only adolescents in the outcast group engaged in deviant or dangerous risks.
    - These risks included drugs, fighting, and frequenting adult bars.
    - Other groups showed most smaller frequencies of such risks.

## II. RESEARCH ON CONTEXT EFFECTS

### A. Microsystems: Parents

- Parents as Microsystems
  - Adolescent relationships with parents is based on negotiating autonomy and attachment.
    - Autonomy is the sense of being a self-governing individual whereas attachment is the sense of being intimately connected to parents.
  - Effective parenting (connected and authoritative) strikes a balance between connection and separation.
    - Conflict with parents increases over early adolescence but decreases by late adolescence.
      - Change can be explained by changes in adolescent-parent relationships due to puberty.
    - Typically, conflict is not too frequent to serious.

## II. RESEARCH ON CONTEXT EFFECTS

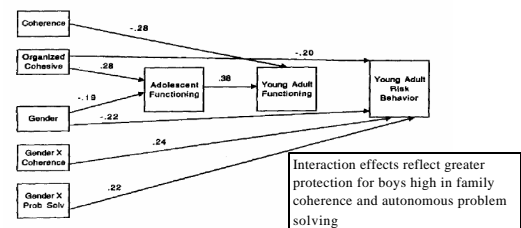
### A. Microsystems: Parents

- Fisher and Feldman (1998) examined adolescent risk taking in the context of families.
  - 116 participants (58 M and 58 F) were assessed for personal and emotional functioning and their engagement in risky behavior as early adolescents and young adults
  - Families were observed and assessed
    - *Organized Cohesiveness* surveys assessing family cohesion, orderliness, and clarity of roles and rules
    - *Cohesion* questionnaires assessed adolescent's view of the family as supporting
    - *Autonomous problem solving* assessed family support for independent problem resolution.

## II. RESEARCH ON CONTEXT EFFECTS

### A. Microsystems: Parents

- The results from the multiple regressions were best presented visually.



## II. RESEARCH ON CONTEXT EFFECTS

### A. Microsystems: Parents

- The predictive power of the model was examined within family contexts.
  - Four types of families were identified.
    - Balanced families: Active engagement in the world and a willingness to support moderate levels of risk taking.
    - Traditional families: Family cohesiveness as a central organizing construct, with order and structure emphasized.
    - Disconnected families: Externally focused, with a turn to outsiders for support, intimacy, and companionship.
    - Emotionally strained: Families are tense and devote considerable energy to contain the expression of long-standing, volatile emotional issues.

## II. RESEARCH ON CONTEXT EFFECTS

### A. Microsystems: Parents

- The extent to which the model correctly (hits) or incorrectly (misses) predicted adolescent risk taking was found to be affected by family type.

Table 5  
*Chi-Square Analysis of Hits and Misses by Family Type*

Family type	No. (and %) of hits	No. (and %) of misses	Total
Balanced	21 (70)	9 (30)	30
Traditional	11 (78)	3 (22)	14
Disconnected	4 (27)	11 (73)	15
Emotionally strained	8 (57)	6 (43)	14
Total	44 (60)	29 (40)	73

Note.  $\chi^2(3, N = 73) = 10.3, p = .01$ .

## II. RESEARCH ON CONTEXT EFFECTS

### A. Microsystems: Parents

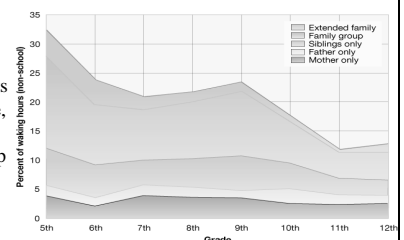
- The results show the power of family variables are directly related to risk taking behavior.
  - The family factors are NOT mediated by adolescent personal and emotional functioning.
- Families with a definable level (high vs. low) of internal coherence can predict adolescent and young adult risk behaviors, both positively and negatively.
  - Diffused, externally focused families have less impact on health risk behaviors.

## II. RESEARCH ON CONTEXT EFFECTS

### A. Microsystems: Parents

- Adolescent time with families
  - Adolescent search for autonomy involves changes in family relationships

Beeper study found that over age, teens' time spent with parents remains the same, but their time with family group (dinners, etc.) drops significantly



## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Peer Conformity

- Peers and conformity
  - Winning the fight for autonomy from parents means more time is spent conforming to peers.
    - Peer conformity varies with adolescents' age (peaking in early adolescence), need for social approval, and the situation.
  - Teen friendships are stable and stress intimacy and loyalty.
    - Adolescent friends are similar in values etc. and cooperate more and compete less than do younger children.

## II. RESEARCH ON CONTEXT EFFECTS

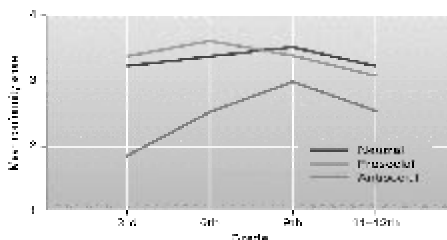
### B. Microsystems: Peer Conformity

- Conformity behavior reaches its highest in early adolescence
  - Paradox: Autonomy fights at home while conformity behavior to peers.
    - Fights for autonomy from parents results in adolescents succumbing to pressure to conform by friends.
  - Peer Pressure stronger in some areas than others.
    - Dress, Music, Language, Values and Leisure Activities
  - Conformity**: Adopt the attitudes or behavior of others because of real or imagined pressure.
    - Positive Conformity**: Prosocial activity
    - Negative Conformity**: Antisocial Activity.

## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Peer Conformity

- Issues of Conformity
  - Antisocial conformity reaches peak in early adolescence (Berndt, 1979).



## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Peer Conformity

- Gardner & Steinberg (2005) tested peer influences on risk taking in a simulated driving experiment.
  - Participants were groups of 14, 19, and 34 year-olds (mostly White and African-American)
    - They were given a simulated driving experiment (Chicken) by themselves or with known friends/peers and assessed for risk taking (moving times and restarts)
    - They were also given the *Bentlin Risk Perception Measure* (BRPM; Bentlin, Slovic, & Severson, 1993) and the *Youth Decision-Making Questionnaire* (YDMQ; Ford, Wentzel, Wood, Stevens, & Siesfeld, 1990).

## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Peer Conformity

- They found
  - Effect of age on risk taking.
  - Effect of peers on risk taking.
  - Interaction effect of peers and age on risk taking. Teens more than others are affected by peers.

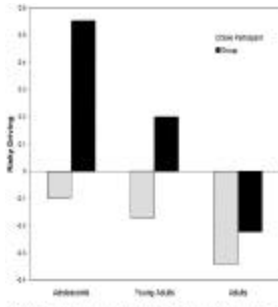


Figure 2. Age × Condition Interaction in Chicken game when higher score indicate more risk taking.

## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Peer Conformity

Interaction effect may reflect ethnicity effects.

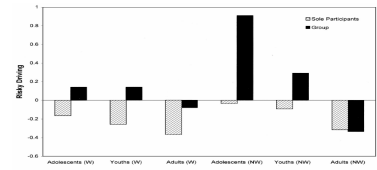


Figure 3. Age × Condition × Ethnicity Interaction in Chicken game, where higher scores indicate more risk taking. 00 = White participants; 000 = non-White participants.

- For reasons not yet understood, the presence of peers makes adolescents and youth, but not adults, more likely to take risks and more likely to make risky decisions.

## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Peer Acceptance

- **Peer acceptance**
  - It is assessed using **sociometric techniques** that ask peers to evaluate one another's likeability.
    - Positive: List 3 kids with whom you would like hang.
    - Negative: List 3 kids with whom you would not like to hang.
  - Responses reveal 4 different categories of social acceptance.
    - **Popular children** are those who get many positive votes.
    - **Rejected children** are actively disliked.
    - **Controversial children** get positive & negative votes.
    - **Neglected children** are seldom chosen.
  - Two-thirds clearly identified in a typical school

## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Peers Acceptance

- **Status**
  - There are two types of **Popular Adolescents**
    - **Popular-prosocial** combine academic and social competence.
    - **Popular-antisocial** are often "tough" but "cool" who may be athletically skilled, but poor students.
  - **Neglected teens** are usually well adjusted.
    - Considered shy but are not less socially skilled than average children.
  - **Controversial teens** are hostile and disruptive.
    - But they also engage in many positive, prosocial acts.
  - **Rejected teens** are the most "at risk".
    - They are unhappy, alienated, poorly achieving children with a low sense of self-esteem.



## II. RESEARCH ON CONTEXT EFFECTS

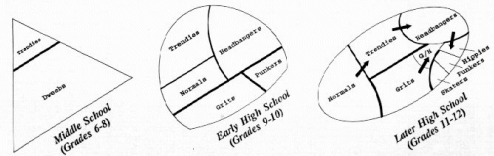
### B. Microsystems: Peer Acceptance

- **Rejected Adolescents**
  - Rejection is associated with poor school performance, dropping out, antisocial behavior, and, in some cases, delinquency in young adulthood.
  - Two subgroups of rejected children
    - **Rejected-aggressive:** Engage in high rates of conflict, hostility, and hyperactive, inattentiveness, and impulsive behavior.
      - They are also deficient in social understanding; Suspended in grade 3, juvenile delinquents by adolescence.
      - Highly aggressive children tend to be rejected by peers, fail in school, and (by adolescence) seek out deviant peer groups.
    - **Rejected-withdrawn:** Passive and socially awkward.
      - Submissive style make them at risk for abuse by bullies.
      - Appears to be the profile of some adolescent school shooters

## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Crowds

- **Emergence of Crowds**
  - Unlike cliques, crowds are larger groups with less intimacy.
    - There is a increasing differentiation of crowds over age.



## II. RESEARCH ON CONTEXT EFFECTS

### B. Microsystems: Millar Jones

- Millar-Jones et al., (2000) examined the relation between peer status and risk taking in adolescents.
  - The participants were 647 African American, low SES 13-year-olds in a program to reduce risk taking.
  - Participants completed peer and risk assessments
    - Peer assessments: Peer Status, Deviant Peer Associations (friends with kids who get into trouble), and Conventional or Unconventional clique leadership were assessed.
    - A range of risk behaviors were assessed, including sexual activity, smoking, drug use, alcohol use, and violence.

## II. RESEARCH ON CONTEXT EFFECTS

### A. Microsystems: Peers

- Different peer status were associated with different risks.
  - Controversial teens: Highest in sexual activity (44%) and cigarette smoking (25%).
  - Rejected teens: Moderately high in sexual activity (30%) but fairly low in cigarette smoking (13%).
  - Popular teens: Moderate in sex (27%) and cigarettes (9%).
  - Neglected teens: Lowest in sexual activity (18%) but fairly low in cigarette smoking (7%).
  - Other risks unrelated to peer status.

## II. RESEARCH ON CONTEXT EFFECTS

### A. Microsystems: Peers

- Deviant peers and leadership style varied by risk behavior.
- A negative beta weight reflects a negative correlation.
- Non-conventional leaders (who are popular & controversial teens) and deviant friends are generally associated with more risk taking.
- Conventional leaders (who are only popular kids) are related to less risk taking.

Table 1. Social Influence Predictors of Problem Behaviors

Model	Predictors	Wald $\chi^2$	$\beta$	Odds ratio	95% Interval	
					Lower	Upper
Sexual activity	Intercept	69.39***	1.44			
	Male	17.11***	0.84	2.59	1.65	4.06
	Unconventional leader	25.42***	0.77	2.16	1.63	2.87
	Conventional leader	23.09***	-0.23	0.47	0.35	0.65
Cigarette use	Intercept	3.62 <sup>†</sup>	0.23	1.26	0.99	1.59
	Male	108.19***	-2.06			
	Unconventional leader	8.22*	-0.46	0.55	0.31	0.97
	Conventional leader	14.29***	0.50	1.80	1.33	2.44
Substance use-other	Intercept	14.62***	0.01	1.87	1.26	2.76
	Male	10.13**	-0.54	1.73	1.32	2.26
	Unconventional leader	80.69***	-1.41			
	Conventional leader	7.96*	-0.24	0.48	0.29	0.80
Injured in a fight	Intercept	2.42	-0.21	1.26	0.95	1.69
	Male	40.23***	-0.87	0.59	0.43	0.81
	Unconventional leader	8.30**	-0.38	0.68	0.52	0.88
	Conventional leader	117.79***	-2.19			
Weapons involvement	Intercept	2.28	0.42	1.53	0.89	2.64
	Male	0.03	0.07	1.03	0.74	1.42
	Unconventional leader	7.22*	-0.47	0.66	0.45	0.94
	Conventional leader	12.79***	0.52	1.69	1.27	2.25
Weapons involvement	Intercept	14.03***	-1.30			
	Male	3.62 <sup>†</sup>	0.41	1.51	0.98	2.12
	Unconventional leader	13.34***	-0.49	1.63	1.25	2.12
	Conventional leader	14.71***	-0.51	0.58	0.44	0.77
Weapons involvement	Intercept	2.44**	0.32	1.27	1.00	1.72
	Male					

Note. With the exception of gender, odds ratios are based on a one standard deviation change. The sample size is 647.  
<sup>†</sup>p < 0.10; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

## II. RESEARCH ON CONTEXT EFFECTS

### B. Mesosystems

- Mesosystem deals with the relation between microsystems.
  - To what extent are school, home, and peer contexts connected?
  - Do the values in the home connect up to the values at school and among your peer group?
  - The social contexts in which adolescents function are expected to be interrelated such that difficulties in one domain (i.e., peer relationships) will be related to difficulties in another domain (i.e., academic competence).

## II. RESEARCH ON CONTEXT EFFECTS

### B. Mesosystems

- Mesosystem connections can be seen in Scaramella's et al (2002) model of risk taking.
  - Parenting behaviors reduce the likelihood of adolescent risk-taking both directly (Path b) and indirectly through their influence on school and peer contexts

Parental behaviors affect deviant-peer affiliations (Path a) and academic competence (Path c), which, in turn, relate to later risk-taking behavior



Figure 1. A social contextual model of risk for involvement in a pregnancy by late adolescence.

## II. RESEARCH ON CONTEXT EFFECTS

### B. Mesosystems

The results show that parental warmth was negatively related to deviant peer affiliation but positively related to schools and the two were negatively related to each other.

Deviant peer affiliation was strongly related to risk taking two years later.

There was a direct relation between academic competence and pregnancy status, unmediated by risk taking behavior.

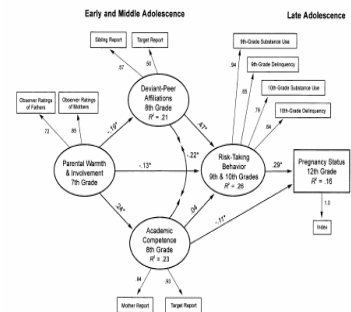


Figure 2. Results for the structural equation model's standardized regression coefficients including the social contextual model, controlling for gender, ethnicity, SES, and SES x SES, in the context of 7th-12th school grades (N = 16,711, 71).

## II. RESEARCH ON CONTEXT EFFECTS

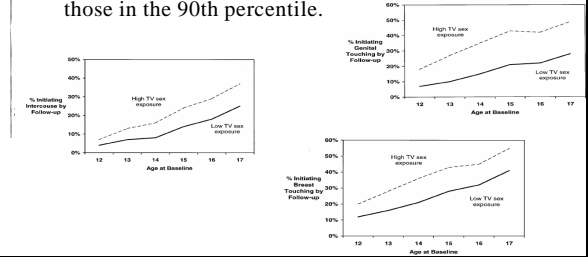
### C. Exosystems

- Exosystem deals with the indirect influences on adolescents and include the media.
  - Collins et al. (2004) assessed the amount of sexual TV content seen by 1792 12- to 17-year-olds.
  - She also assessed the sexual behavior of the teens twice: Once at baseline and again a year later
  - Controlling for microsystems (school performance, parental control and warmth, and deviance of peers), the amount of sexual content they watch on TV predicted later sexual activity in linear regressions.

## II. RESEARCH ON CONTEXT EFFECTS

### C. Exosystems

- The graphs present the predicted probabilities (from the linear regressions) of sexual behavior for those in the 10th percentile of exposure to TV sexual content and those in the 90th percentile.



## II. RESEARCH ON CONTEXT EFFECTS

### D. Macrosystems

- Macrosystem deals with indirect influences due to culture and ethnicity.
  - Arnett and Jensen (1993) distinguish between broad and narrow cultural socialization.
    - Broad Socialization:** Cultures promoting individualism and independence → Higher Risk taking.
    - Narrow Socialization:** Cultures promoting obedience and conformity to standards → Lower Risk taking
  - Danish adolescents (12- to 18-years) were studied because they are broadly socialized into a culture limiting access to cars but not mopeds and proving sex education and contraception.

## II. RESEARCH ON CONTEXT EFFECTS

### D. Macrosystems

- Individual (age, sex & sens. seek), contextual (parental factors), and exosystem (neighborhood size) factors affect Danish risk taking.

TABLE 2  
LOGISTIC REGRESSION ANALYSES WITH VARIABLES PREDICTED TO BE RELATED TO RISK BEHAVIOR

TYPE OF RISK BEHAVIOR	AGE				CITY SIZE		FAMILY TYPE		Sensation Seeking	Family Relationships	Parental Monitoring	Parental Strictness
	12-13/ 14-15	14-15/ 16-17	16-17/ 18-20	Gender	Small/ Med.	Large	Intact/ Div.	Dis/ Step				
	Odds Ratio											
Riding bicycle while intoxicated	.15***	.51**	.89	.57***	.73	1.21	1.01	.84	1.15***	1.00	1.05***	1.00
Driving moped while intoxicated	.29	.44*	1.76*	.20***	1.12	1.15	1.09	.92	1.09***	1.00	1.03**	.99
Driving automobile while intoxicated	1.10	.18	.36*	.38**	.73	1.25	.89	1.08	1.07	1.01	1.03	.98
Drive speed limit	.37	.56	2.40**	1.04**	.85	1.25	.88	1.31	1.07**	1.00	1.01	.99
Driving car > 130 kmh	.56	.56	1.02**	1.34**	.87	1.12	2.43*	.55	1.05	1.00	1.01	1.00
Drive speed limit	.47	1.19	1.02**	1.33**	1.05	1.28	2.07	.52	1.02	1.00	1.00	.99
Sex without contraception	.33	.30**	.60**	.80	.91	.29**	.63	.90	1.08**	1.00	1.00	1.00
Sex with someone known only casually	.47	.24***	.62*	.68	.54*	.22**	.56	1.14	1.19***	.99	1.01	.99
Marijuana use	.62	.32*	1.02	.20**	.79	.20**	.27	.86	1.15**	.98	1.08**	1.00
Heavy marijuana use	.60	.42	1.80	.25	1.46	.19***	.35**	1.79	1.22***	.97	1.03	1.04
Smoking	.47	.54	1.83	.23**	1.19	.14**	.40	.58	1.05**	.97	1.02	1.01
Vandalism	.45	.83	1.23	.24**	2.02***	.26*	.78	.86	1.11**	.98*	1.01	.99
Cigarette dependency	.67*	.96	.72	1.11	.81	.28*	.85	1.05	1.10***	.99	1.04**	1.00

\* p < .01  
\*\* p < .001  
\*\*\* p < .0001

## II. RESEARCH ON CONTEXT EFFECTS

### D. Macrosystems

- The findings were taken to support the power of broad socialization
  - Forms of risk-taking were affected by culture
    - Risky driving of mopeds much higher than cars because of Danish law. Nonetheless, the strong influence of sensation seeking on risk taking may be universal.
  - Cultural forces were mediated by city size
    - City size may be an indicator of exosystem and mesosystem issues.
  - Parental/family factors were weakly related to risk.
    - Such factors were not predictive of risk taking because of the force of macrosystem on the microsystem.