

Socio-economic adversity and child development:

Mechanisms and Processes



Ingrid Schoon

Institute of Education, London

Project funded by the Economic and Social Research Council (ESRC)

Cardiff Institute of Society, Health, and Ethics

2 April 2008

Resilience

- positive outcome despite the experience of adversity
- continued positive or effective functioning in adverse circumstances
- recovery after a significant trauma

(Masten, Best & Garmezy, 1990)

Identifying resilience

- Not directly measured
- Inferred on the basis of constellations of exposure to adversity and the manifestation of positive adjustment in the face of that adversity
- Based on two judgements:
 - is the person doing ok?
 - is there now or has there been any significant risk or adversity to be overcome?

Paradigmatic Shifts

- Move from constancy model to dynamic models of development
- From pathogenic to transactive systems models
- From deficit models to asset models

Defining Risk

- Epidemiological research
- Expected probabilities of life chances and adjustment based on earlier or current experiences
- Can encompass genetic, biological, psychological, environmental, or socio-economic factors

Variability of risk exposure

- Focus on single risk factors
- Accumulation of risk effects → multiple risk models
- Statistical versus actual risk
- Plurality of meaning
- Duration and timing of risk effects

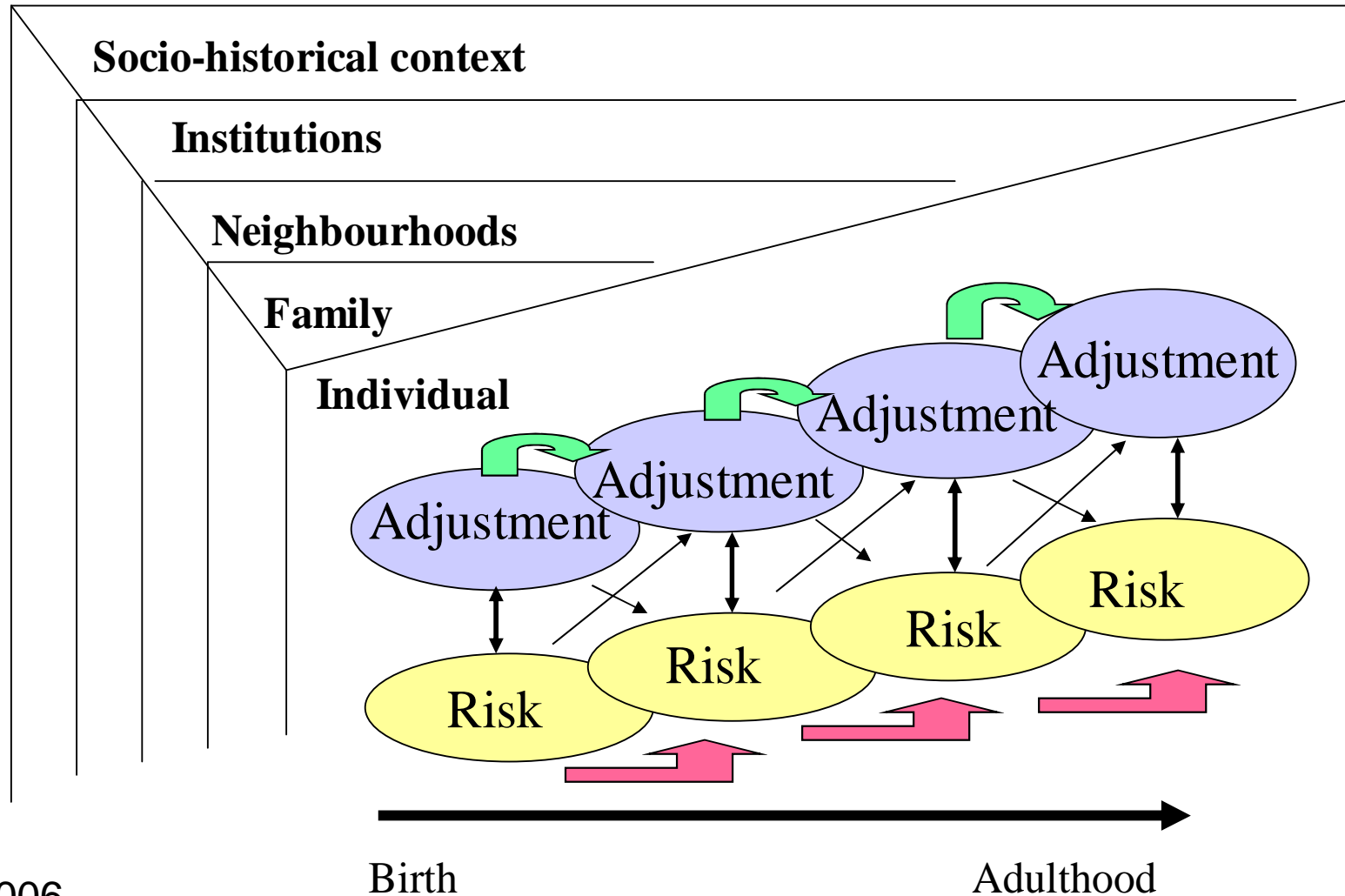
Positive adjustment

- Subjective evaluation
 - Normative outcomes
 - Who decides?
- Heterogeneity of adjustment:
- * Context dependency
 - * Multiple domains of adjustment

Resilience in context

- Multidimensionality
 - Developmental perspective
 - Processes and mechanisms
 - Holistic approach
 - Values and meaning
- A developmental-contextual systems approach
- based in life course research

A Developmental-Contextual Model of Resilience



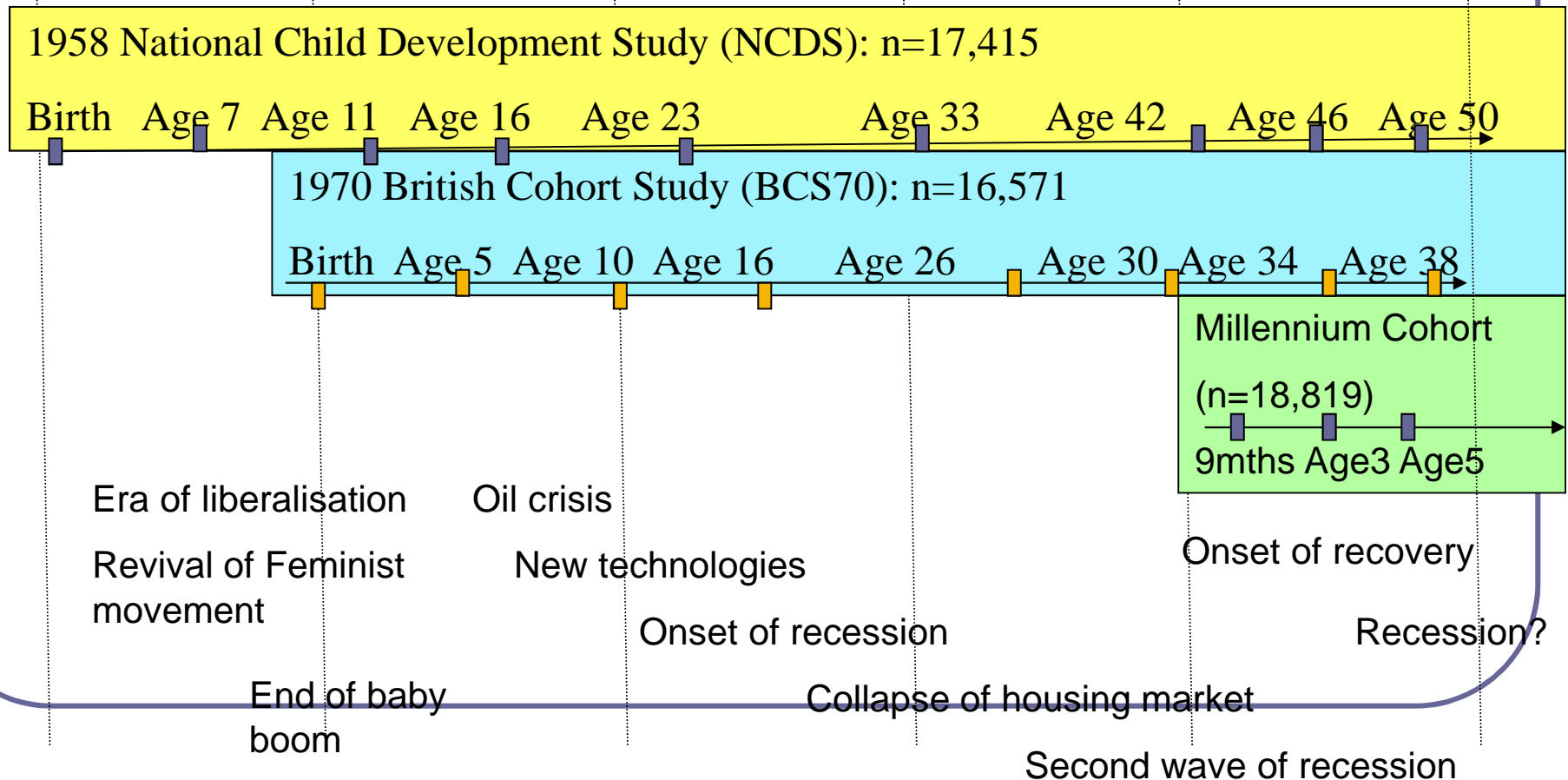
Schoon, 2006

Three National British Birth Cohorts

Age of Cohort Members by Historical Events

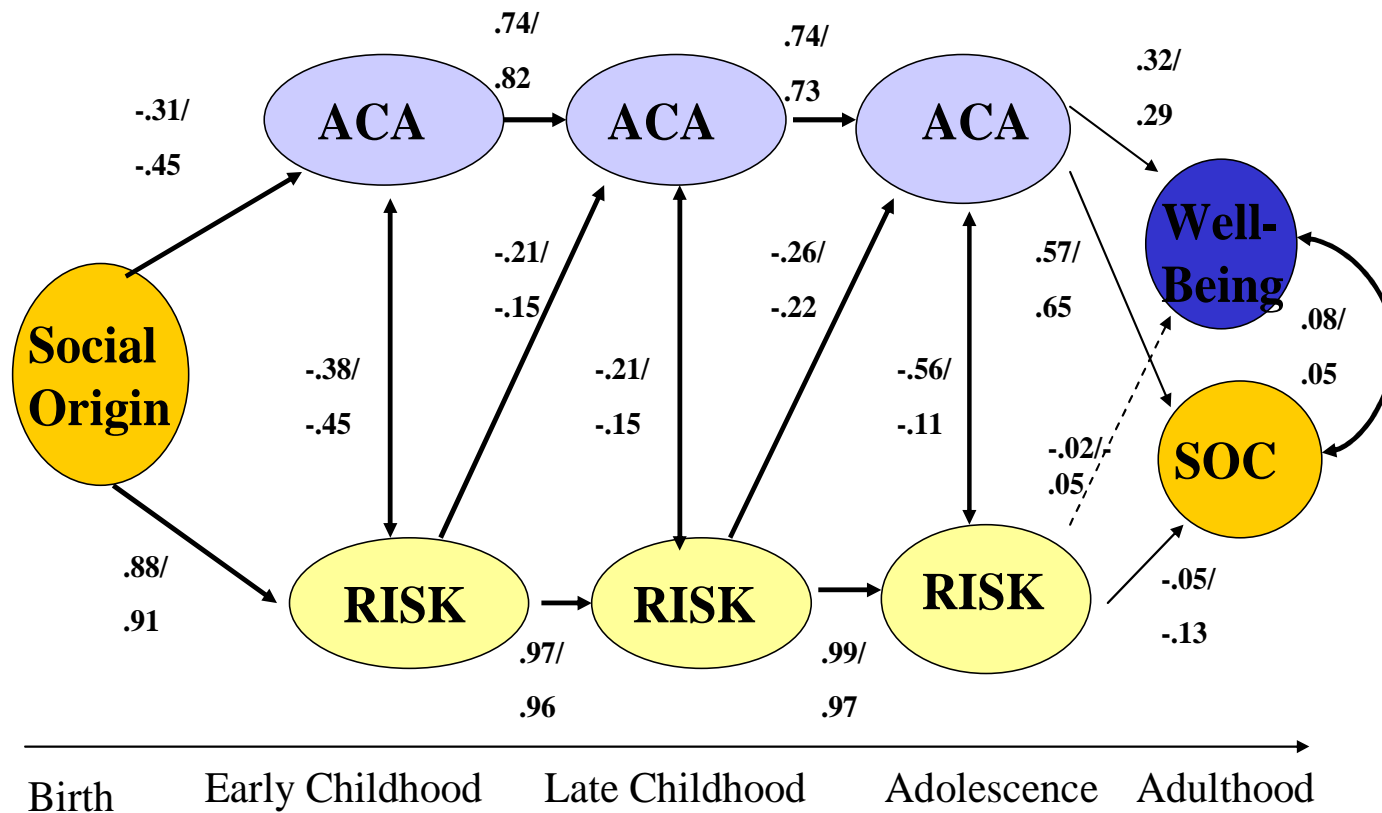
Boom Economy Recession Economy Knowledge Economy

1958 1960 1970 1975 1980 1985 1990 1995 2000 2005 2010



**Developmental Focus:
Causation, Selection, and Cumulative
Risk Effects**

Selection, Causation, and Cumulative Risk Effects: Social risk, academic achievement and adult adjustment NCDS/BCS70



Protective Factors and Processes

- Individual attributes
- Characteristics of the family
- Interactions with 'significant others'
- Aspects of the wider social context

Risk and Resilience
Adaptation in Changing Times

Ingrid Schoon

Cover Story

Models of Resilience

- Challenge model
- Cumulative effect model
- Protection effect model

Population versus Person centred approach

- Population/Variable centred approach:
 - Main effects
 - Interaction effects
- Person centred approach:
 - How do variables combine in individuals
 - Connection between risk and adjustment

Identification of Resilience

(example: NCDS at age 7)

Socio-economic Adversity

Low (none)

High (4+)

Reading at 7

above average

Multiple
Advantaged
69%

Resilient
37%

below average

Privileged Low
Achievers
31%

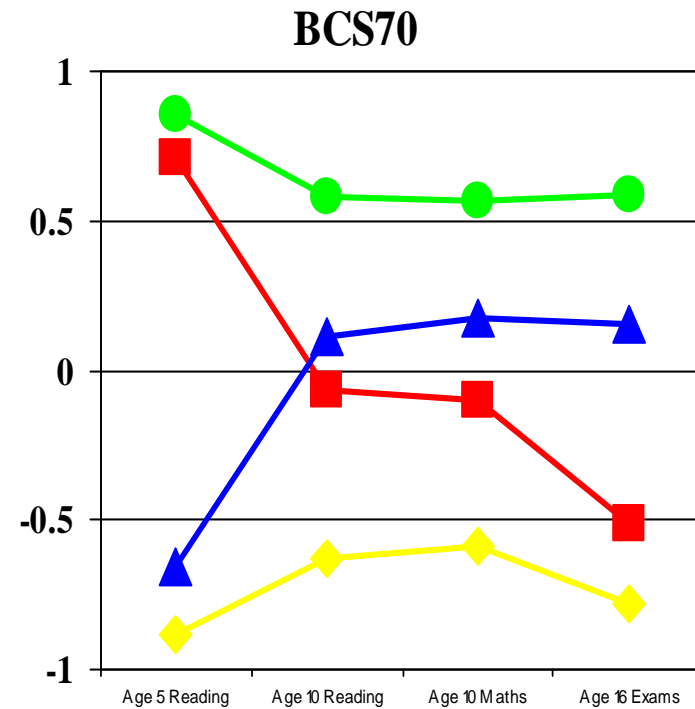
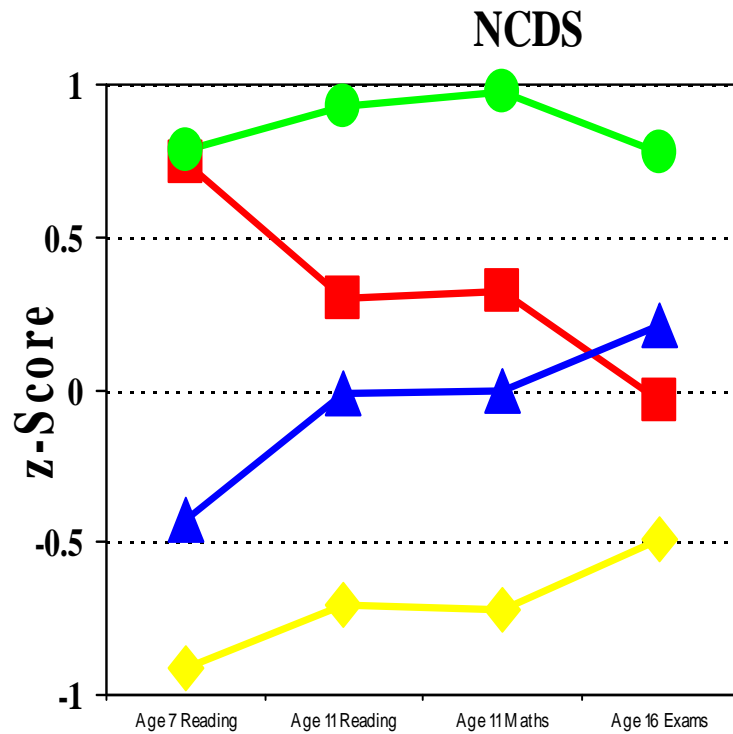
Vulnerable
63%


(Schoon, 2006)

n = 2044


n = 2341


Educational Attainment: Early childhood to adolescence




Vulnerable


Resilient


Low Achiever

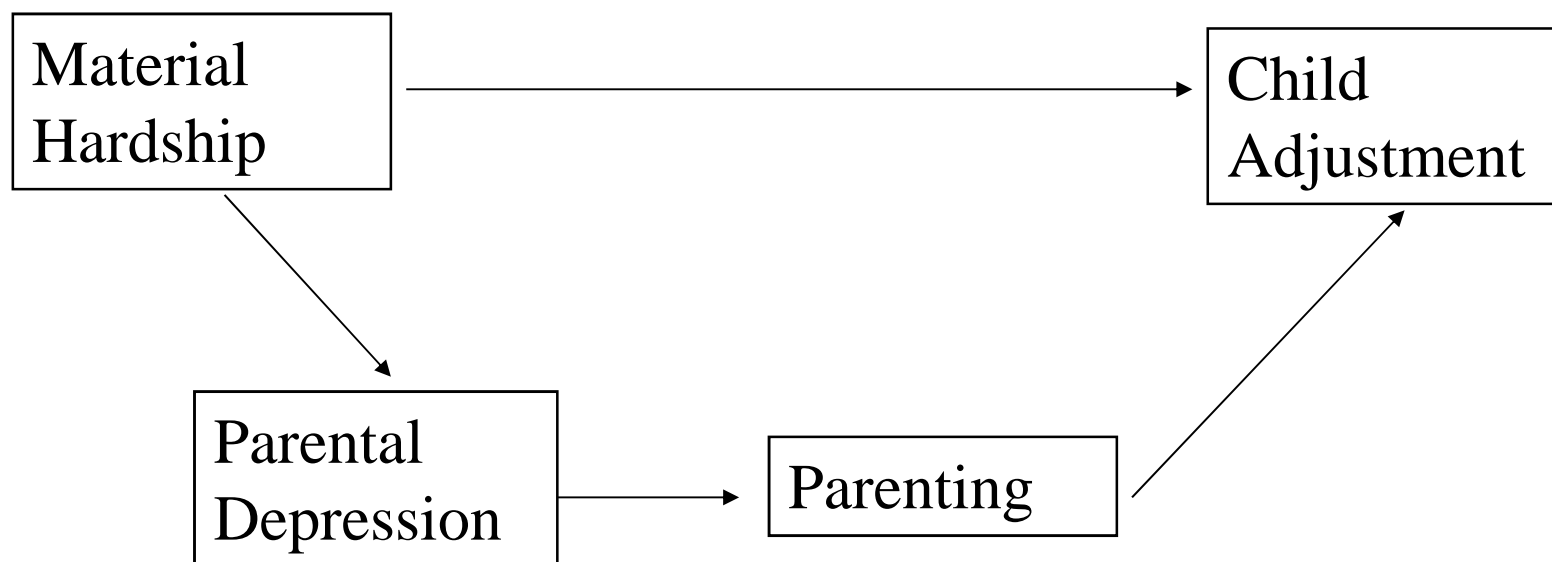

Multiple Advantage

(Schoon, 2006)

Pathways linking socio-economic adversity and child development

- **Family Stress Model** (Conger et al., 1992, 93; Elder & Caspi, 1988; McLoyd, 1989):
 - Links family economic stress to problematic adolescent development
 - Postulates that economic stress affects adolescent adjustment indirectly through family processes (i.e. through parental mood, relationship difficulties, and parenting)

The Family Stress Model



Conger et al., 1994

Extension of Family Stress Model:

- Application of the model to young infants
- Representative UK sample (the Millennium Cohort)
- Longitudinal perspective

Millennium Cohort: Indicators of Child Development

- Behavioural adjustment
 - age 9 mths: Child Temperament (9 items from the Carey Infant Temperament Scale: regularity and adaptability)
 - age 3 years: Strength and Difficulties Questionnaire: SDQ (Goodman, 1997)
 - age 5 years: SDQ
- Cognitive development
 - age 3 years: Bracken School Readiness Scale; BAS naming vocabulary
 - age 5 years: BAS (verbal and performance subtests: verbal comprehension, naming vocabulary, pattern construction, picture similarities)
- (N=18819 babies born into 18553 families)

Indicators of Material Hardship

	Age 9mths %	Age 36mths %
Home Ownership (no)	33	30
Overcrowding (yes)	8	7
Receipt of income support (yes)	14	13
Low income (9 months <£10,400; 36 months <£11,000)	19	18
Access to a car / van (no)	13	12

Maternal psychological distress

- Age 9mths: shortened version (9 items) of the Malaise Inventory (Rutter et al., 1970)
- 36 mths: Kessler K6 (Kessler et al, 2002)
- Both tests are:
 - Self completion instruments
 - good reliability ($\alpha > .80$)
 - Good validity (correlates with previously diagnosed depression and currently treated depression)

Parenting at age 3 years

- Parent-child relationship scale (Pianta, 1994): maternal sensitivity
 - 15 items (warm, affectionate relationship, comfort, praise, anger, discipline, being in tune)
 - maternal report
 - good internal consistency (alpha = .77)
 - summary score

Cognitive Stimulation at age 3 years

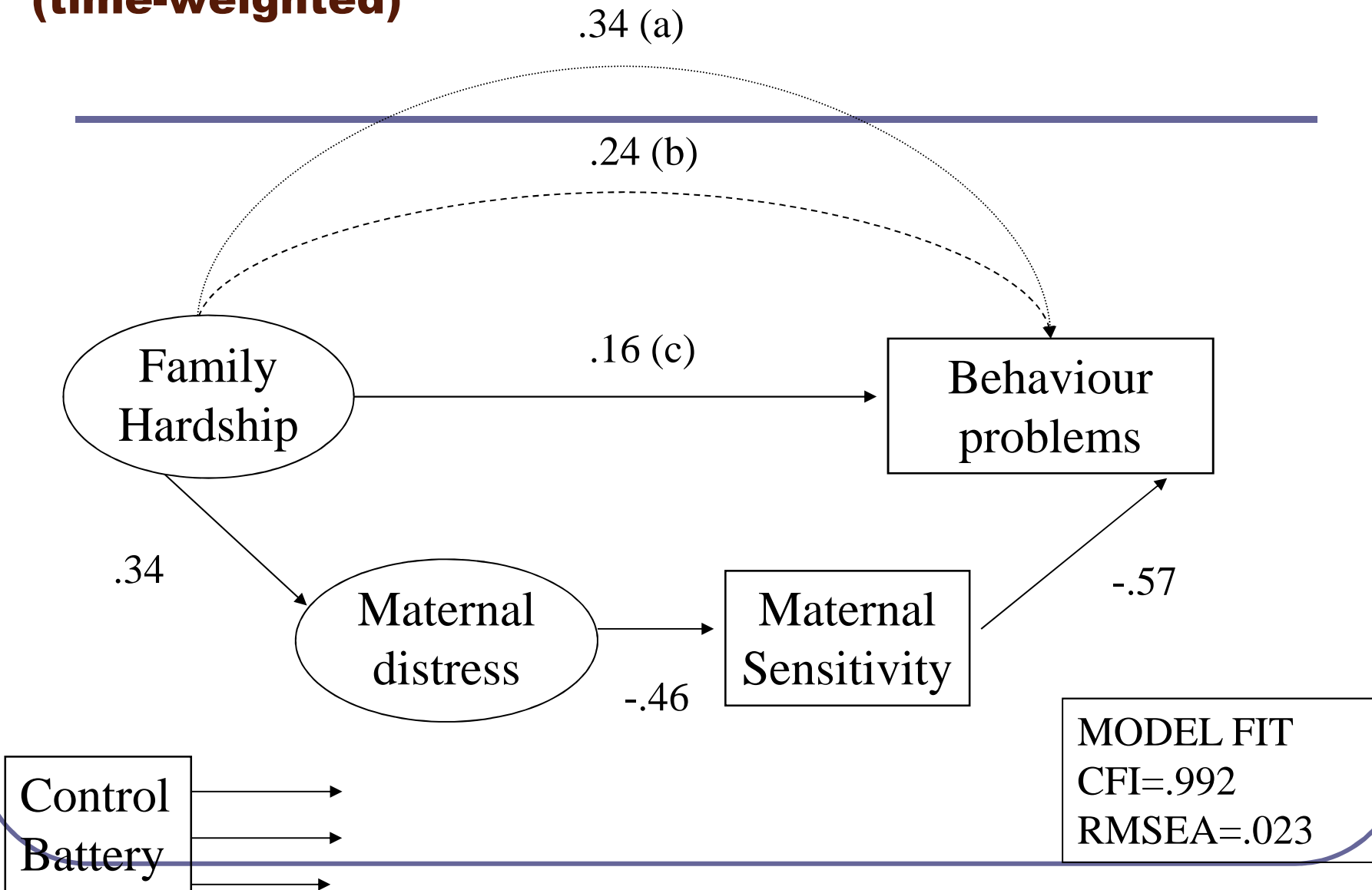
- Maternal report on how frequently the child is taught:
 - the alphabet
 - counting
 - songs
- Summary score (alpha = .64)

Control Variables

- Mother's age at birth of child/at interview
- Mother's education (below GCSE; GCSE and above)
- Parental employment (in paid employment or not)
- Mother's ethnicity (white versus other)
- Sex of child
- Birthweight (< 2500 grams)
- Prematurity (gestation < 37 weeks)
- Total number of siblings living in the household

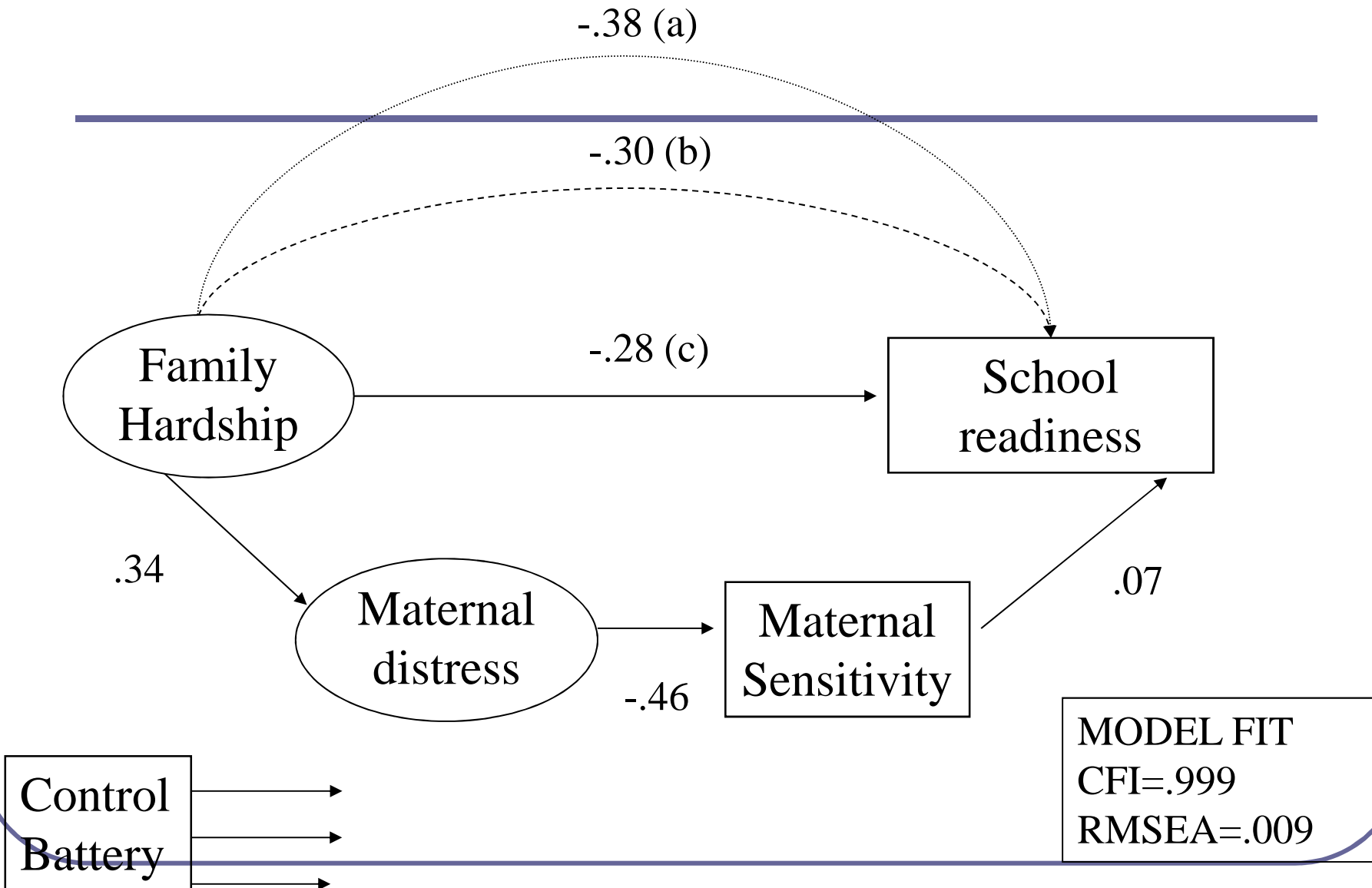
Family Hardship and Behaviour Problems

Family hardship and problem behaviour at 3 years (time-weighted)



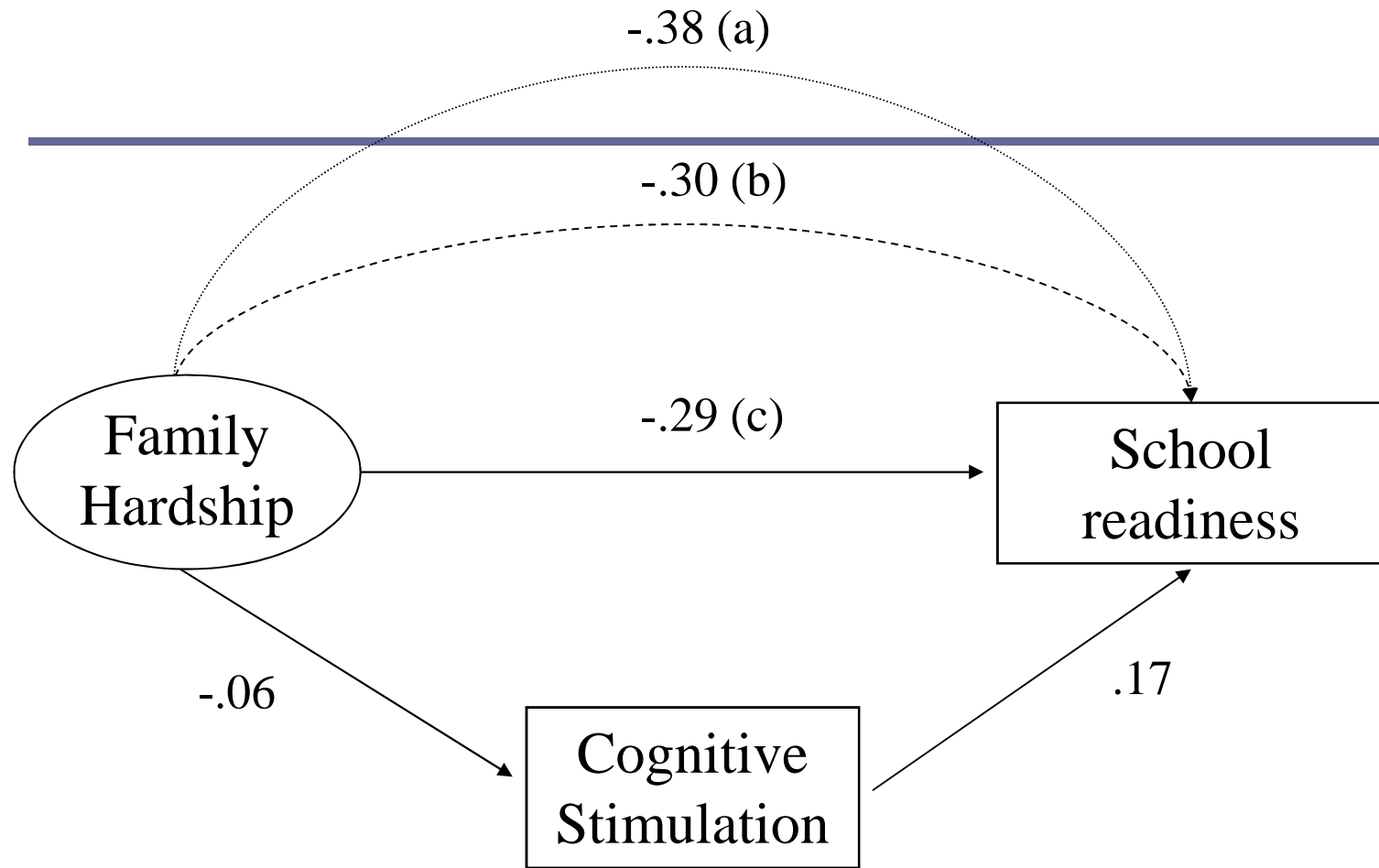
Family Hardship and School Readiness

Family hardship and school readiness at 3 years (time-weighted)



Family Investment Model

Family hardship and school readiness at 3 years (time-weighted)



Control
Battery

MODEL FIT
CFI=.1.00
RMSEA=.005

Summary

- The experience of socio-economic hardship:
 - is associated with cognitive and behavioural development
 - can exacerbate maternal distress
 - may undermine effective parenting
- Important to disentangle emotional and cognitive components of parenting and adjustment
- Important to assess specific risk effects
- Important to test for mediating processes

Protective processes

- Reduction of risk impact or sensitivity to risk
- Breaking negative chain reactions or increasing positive chain reactions
- Promoting positive experiences leading to greater self esteem and self-efficacy
- Opening up new opportunities
- Supporting planful competence and orientation to the future

(Rutter, 1990)

What can be done to improve life chances for children and young people

- Improve overall distribution of resources and opportunities
- Support children and their parents
- Invest in education – improve standards for all
- Recognise diversity in adjustment
- Holistic approach
- Developmental perspective
- Sustainability of programs
- Never too early, never too late for interventions

Thank you

I.Schoon@ioe.ac.uk

