

# **COGNITIVE CAPITAL AND THE RETURNS TO EDUCATION AFTER THE LAST FIFTY YEARS**

## **Background**

Cognitive function is concerned with those human faculties such as memory, attention, perception, action, problem solving and mental imagery that are central to adaptive capability. These functions originate early in life and continue to develop through adolescence and adulthood before levelling off and starting to decline in old age. The significance of cognitive function in educational performance extends its influence to life chances in relation to occupation and income and well-being during the working years.

## **Importance of cognitive capital**

These developmental and protective aspects are usefully expressed through the idea of 'cognitive capital', i.e. an accumulating asset that can be drawn upon to create and to take advantage of opportunities, and to sustain well-being in response to environmental challenge and stress. Such capital is differentiated by social background with higher class families tending to accumulate more of it than others.

## **Research resources**

In Britain the developmental impact of cognitive function has been investigated and found to be changing across three longitudinal studies (the 1946, 1958 and 1970 birth cohort studies) that began at birth and have continued into adult life. Two other large studies the Avon longitudinal Study of Parents and Children and the Millennium Cohort Study, more recently begun, also have measures of cognitive function in childhood.

## **Social change**

During the childhood phases of the longitudinal studies, whose members are now adult, change in the circumstances that influence cognitive development was considerable. For example, preschool educational provision was meagre in the early post-war years, parental education was poor, parental separation was unusual, nutrition was controlled by food rationing, and opportunities in further and higher education (and consequently in occupation and income) were limited and neither equally available nor expected to be equally available. By the 1970s, when the third study began, all these influential circumstances had changed.

## **Aims**

The aim of this Longview seminar series is to make innovative use of information from the national longitudinal data resource to show the extent to which difference in the physical and social environment of childhood has influenced cognitive function. In turn, through the role of cognitive function in the production of cognitive capital the further aim is to show how birth cohort differences influenced opportunities and the narrowing of equity gaps in education, occupation and income. Using those results we shall discuss the

effects of policy on the acquisition of cognitive capital, and the implications for future policy development.

All presentations will be made available after each seminar on the Longview website ([www.longviewuk.com](http://www.longviewuk.com)) and will form the basis of a book to be produced after the series is completed.

## **Speakers**

John Bynner (Longview) \*  
Michael Wadsworth (Longview) \*  
Ian Deary (University of Edinburgh)  
Leon Feinstein (Institute of Education)  
Paul Gregg (University of Bristol)  
Harvey Goldstein (University of Bristol and Institute of Child Health)  
Kirstine Hansen (Institute of Education)  
Marcus Richards (MRC National Survey of Health and Development, University College London)  
Ingrid Schoon (City University)  
Gill Sutherland (Newnam College, University of Cambridge)

\*convenors

## **Programme**

The seminar series will span the life course starting with the early stage of life, moving on to childhood and adolescence and then the adult years.

### ***Seminar 1 Introduction: How to think about cognitive function? How to measure it? What to do about it? – Friday 26 January 2007***

The first seminar is largely for scientific and policy scene-setting introducing the key concepts, the research resources and the measurement issues.  
(Bynner, Wadsworth, Deary, Sutherland)

### ***Seminar 2 Cohort differences in the development of cognitive capital during the preschool and early school years (birth to age 8 years) – Friday 23 February 2007***

Available datasets are 1946, 1958, 1970 cohort studies, ALSPAC, Millennium Cohort study.

(Speakers: Feinstein, Hansen, Schoon)

### ***Seminar 3 Effects of cognitive capital in adolescence (ages 9-15 years) – Friday 16 March 2007***

Available data sets with relevant measures are 1946, 1958 and 1970 cohorts and ALSPAC.

(Speakers Feinstein, Goldstein)

***Seminar 4 Cognitive capital and the transition to early adulthood (Ages 16-25 years) – Friday 4 May 2007***

Available datasets are the 1946, 1958 and 1970 cohort studies.

(Speakers: Schoon, Bynner)

***Seminar 5 Effects of cognitive capital on employment and income family and citizenship and citizenship in mature adult life (25 plus) – Friday 25 May 2007***

Available datasets are: 1946, 1958, 1970 cohort studies for the early 30s and 1946 and 1958 cohort studies for the early 40s.

(Speakers: Gregg, Richards)

***Seminar 6 Where next? – Friday 29 June 2007***

The final seminar will be devoted largely to policy and scientific issues arising from the previous seminars including, setting the agenda for research that needs to follow.

(Speakers Bynner, Wadsworth, Others)