

4 HUMAN CAPITAL, PART I BIRTH AND EARLY CHILDHOOD

4.1 INTRODUCTION

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Educational attainment, labour market status, choice of profession and wages all strongly depend on individual human capital, which is a set of personal characteristics that enable someone to produce economic value (see for example *Mincer*, 1958). The most important elements, and the ones examined most often by economists, are cognitive skills, non-cognitive characteristics and health – this volume covers these in detail; however, due to lack of space, some important topics, such as network capital, will not be analysed.

Cognitive skills mainly include attention and the ability of processing information, measured by intelligence and performance tests developed for this purpose (see *Bilker et al.* 2012), which effectively predict labour market success (*Heckman et al.* 2006).

Non-cognitive characteristics include several personality traits and abilities, such as the Big Five personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness) often used by psychologists and the preference parameters used and measured by economists (social, risk, competitive and time preferences) (*Borghans et al.* 2008a).

According to Heckman's model of human capital formation, the various components of human capital are fundamentally related. Components of human capital created in one period increase the return on investments made in the next period. Additionally, cross effects are also seen, for example because of a higher level of non-cognitive skills in the first period, the level of cognitive skills grows faster in the second period (*Heckman*, 2007).

Chapters 4–7 give an overview of the major components of human capital as well as the gender differences in these components. Chapter 4 presents the formation of human capital in early childhood and the impact of shocks on children. Chapter 5 discusses school performance, which strongly relates to cognitive skills; however, non-cognitive skills (for example perseverance and tolerance for failure) also have a significant impact on it (*Borghans et al.* 2008b). Chapter 6 covers the differences in, and the effects of, non-cognitive factors, while Chapter 7 details what is currently known about the health of Hungarian women.

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