Book review: James J.Heckman and Alan B.Krueger. *Inequality in America – What role for human capital policies ?* MIT Press 2003

By Daniele Checchi (University of Milan – March 2005)

Academics have a bias toward believing that cognitive skills are of fundamental importance to success in life (pg.171)

This book presents two extended papers presented at the third Alvin Hansen Symposium on Public Policy, held in Harvard in 2002, followed by a an interesting discussion by five leading labour economists, and a rejoinder from the authors.

As the title anticipates, the two contributions focus on how public policies can counteract the increasing earning inequality recorded by the US economy in the last two decades. However they endorse different perspectives. In his contribution on "Inequality, too much of a good thing", Alan Krueger documents the increased income dispersion at both ends of the distribution in US, and then reviews potential arguments against income inequality. Leaving aside altruistic beliefs induced by philosophy or religion, Krueger pays more attention to what he terms "enlightened self-interest", whose main tenets consist of the following statements:
i) more education reduces the inclination toward crimes, and therefore is cost effective in terms of reduction of future cost of protection and/or welfare provision;
ii) more education increases growth through externalities in the innovation diffusion;
iii) more education has an intrinsic democratising content, since it allows better informed participation and reduces the lobbying ability of the riches.

Once one accepts the principle that more education is desirable, (s)he wonders how it is possible to raise the demand for education in the population. Given the existing evidence in support of the presence of liquidity constraints (even if Krueger is rather agnostic with respect to them, since it is sufficient to notice that "Children from poor families *behave* as if they have higher discount rates", p.21), public resources invested in education and targeted to poor families may lead to significant increase in earnings for the lower tail of incomes distribution.

The remaining of his contribution is devoted to a review of successful experiments (either natural experiments, unexpected changes of the environment inducing unintended changes of behaviour among the agents – or randomised ones, whenever a random sample of the population, the *treated* group, receives the benefits of a policy measure, whereas another identical group, the *control*, does not obtain the same advantage) in educational policies. Most of them focus on preschool programmes (Perry, Early Head Start) or on additional schooling (summer schools, remedial programmes for disadvantaged youth).

In his conclusions, Krueger stresses the point of targeting public effort to poor families and to deprived areas, through the extension of early school programmes, by providing financial incentives for additional schooling (for example by introducing summer school vouchers), by reducing class size in low income areas and by raising compulsory education to 18 in all states.

The second contribution, by Pedro Carneiro and James Heckman, titled "Human capital policies", provides an up-to-date account of scholar consensus on the factors driving private educational choices. Their contribution open with the fact that in US the educational drive has vanished in the cohorts born after the 50's of the last century. This is surprising in face of an increase in measured return to education, and begs for an explanation: "In the face of declining real wages for low-skilled workers and increasing real returns to college graduation, a greater proportion of U.S. youth are low-skilled dropouts than thirty years ago" (p.85).

While the rise in college premium can be accounted for by an increasing demand for skills in production, the decline in the education attainment in children from low-class families has to be explained. Carneiro and Heckman do not believe that compensatory economic resources would solve the problem, since they put greater emphasis on personality traits that are formed in the adolescence years and are crucial for the decision of proceeding in the educational ladder, or stopping earlier.

From a purely theoretical viewpoint, the return of human capital investment is higher the earlier is the investment, due to the longer time horizon and the decreasing marginal productivity in production. In addition, when we take into account the cumulative nature of the learning process (*learning begets learning*). However the traditional human capital approach focuses on the idea that cognitive abilities are the most important outcome of schooling *because of* they are essential inputs in production. This approach is effective when is invoked to account for between-group income differentials (there are thousands of estimates of the private return to education in a Mincerian tradition), but is unable to explain the low (or insignificant) impact of policies aiming to improve school quality and consequent human capital formation. Both aspects could be jointly explained if we could redefine the outcome of schooling in a broader sense, taking into account the construction of individual personalities.

Before providing some evidence in support of this view, Carneiro and Heckman devote many pages in reviewing existing literature, with the explicit goal of proving that we lack a sufficiently general theory of schooling choices. The received wisdom in Becker's tradition suggests that demand for education is increasing in student ability (when observable) and in family income (up to a given point, when the family becomes credit unconstrained). For this reason, the two authors start with showing that existing evidence on credit constrainedness for US families is weak, at least from an econometric point of view, given the impossibility to distinguish between economic and cultural resources in richer families. In their opinion, the most important constraint derives from non-monetary factors ("...the inability of the child to buy the parental environment and genes that form the cognitive and non-cognitive abilities required for success in school" p.97). The empirical support for this claim is offered by several estimates available, where the inclusion of proxies for abilities leads to a significant decline of the explanatory power of family income. In this perspective, any policy aimed to relieve credit constrainedness would be ineffective in reducing class differences in achievement.

However Carneiro and Heckman do not provide a comprehensive explanation of how children ability is formed. Some inference is obtained by existing studies of early test score differentials. Ethnic or family income gaps are already visible at the age of six, and they do not vanish in the subsequent career. They account for these non-vanishing differentials in terms of acquired non-cognitive abilities (self-discipline, motivation) that are still malleable in adolescence years. For this reason, in the final section they put more emphasis on policies targeted either to early childhood or to troubled youngsters. In the former case they show that existing evidence on small-scale similar intervention is rather uncontroversial, but the problem is given by the possibility to violate the sovereignty of the family in children education. In the latter type of policies, which are less discussed in academic circles, there is convincing evidence of mentoring programmes, where adult volunteers act as surrogate parents for disadvantaged children on school matters.

The book also contains the discussions by G.Borjas, E.Hanushek, L.Katz, L.Lynch an L.Summers, and the rejoinder by the main contributors. We will take up some of the points raised in the discussion in what follows. In my opinion three points are worth commenting in the present volume. The initial one, which is discussed by Krueger in a cursory way, also reappearing in Katz's comments, is the final goal of public policies: are we concerned with the low tail of the income distribution, where there is evidence of significant impact of public resources targeted to poor families, or there is a broader interest for the inequality obtained for entire distribution of incomes ? In other words: does a problem arise from the existence of poor families (whose children are more likely to drop out of school, to enter criminal activity or to obtain low productivity jobs) or from the increasing insecurity for all workers caused by the increase in earnings dispersion ? Choosing one or the other perspective makes a difference. The first goal (reducing the inequality of opportunity in education access) is well defined, and relatively easy to pursue and to assess. The second goal is more difficult, because most of the inequality in earnings is generated in the labour market in a way that may be independent of educational attainments (for example, think of the absence/presence of labour unions in workplaces). While educational policies may be effective with respect to the first goal (as advocated by Krueger), they are rather dubious when directed towards the second goal (as inferable from Carneiro and Heckman contribution).

A second related aspects deals with the policies advocated in the volume. While Krueger's contribution calls for additional resources invested in education (with proper assessment on targeted families), Carneiro and Heckman seem to suggest a sort of "cultural revolution": if possible, policies should aim to change people attitudes towards success in life: "...families with higher levels of resources produce higher-quality children who are better able to perform in school and take advantage of the new market for skill" (p.100). This perspective obviously sounds more challenging, but it is at risk of being inconclusive. Since we basically ignore how differences in attitudes are created, we could be tempted to conclude that they are a mere reflection of differences in tastes, and therefore they cannot be analysed. We walk on a knife hedge between "nature and nurture" explanations of income differences, but the risk of sliding to the side of a natural explanation of inequality is high.

The third and final point concerns the main message of the book on methodological ground. Both contributors pay attention to the proper framework for an economic analysis of human capital investment, but Carneiro and Heckman are more precise in contrasting available approaches. On one side we have the traditional economic approach, where existing alternatives are to be compared by rational agents on the common ground of internal rates of return. On the other side we have the sketch of an alternative "psychological" approach, where the return could to be measures in self-esteem and self-discipline. In this line of reasoning, intergenerational persistence would be assessed using role models. This new approach seems very innovative, despite the lack of appropriate data on a large scale (especially when compared to existing sample on earnings and educational attainments). We hope that economic research would benefit from the contamination of these external contributions.