COMMUNICATION PROPOSAL:

Different roles for human capital in economic growth.

*The case of Europe.*

Marta Cristina Nunes Simões
(mcsimoes@sonata.fe.uc.pt)
Keywords: exogenous vs endogenous economic growth, human capital, education

Classification JEL: O41, O47, O52
Abstract

According to UNESCO, in 1995 the EU members spent in average 5% of its GNP on education and its share of public expenditure was around 10%. These numbers show the importance given to education by the European countries. However, many empirical growth studies are not very clear about the influence of human capital in a country’s economic welfare, especially for samples of OECD countries. What are exactly the benefits associated with higher schooling years? Although the benefits of education are not exclusively economic¹ these are certainly important for population welfare.

Human capital has always been considered as a major source of growth by economic theory. However the introduction of this input in growth models wasn’t made until de 80’s in the works of Lucas (1988), Romer (1990a) and Mankiw, Romer and Weil (1992), just no name a few. Since then may were the empirical studies that tried to measure the relative importance of this input to economic growth. Some examples can be found in Azariadis and Drazen (1990), Barro and Lee (1993), Benhabib and Spiegel (1994), Islam (1995), Pritchett (1999) and de la Fuente and Domenéch (2000). These studies use different samples: some use samples with quite similar economies like the OECD members others use samples with very different countries. Surprisingly enough, the results on the importance of human capital for economic growth are not very clear for samples with homogeneous countries.

Is there an explanation for these strange results? It is never possible to forget the measurement problems associated with human capital. The most common proxy for this variable is the average schooling years of a country’s population. However, if this education lacks quality then it most probably won’t show any positive influence in economic growth. But human capital proxies that control for the quality of education are hard to come by.

Yet another explanation for the lack of influence of human capital in economic growth for OECD countries lies on the model specification. How exactly does human capital influences economic growth: only through final goods production or also as a source of R&D? Exogenous growth models test solely the first explanation while endogenous growth models consider both explanations.

Considering a group of similar countries made of seventeen European economies between 1960 and 1995 this work tries to shed some light into the problem of the channel through which human capital influences economic growth. We begin with the work of Mankiw, Romer and Weil (1992) as a mean of comparison. We then consider the Benhabib and Spiegel (1994) model where human capital as a double role in economic growth: through factor accumulation and as a source of R&D. Finally, we analyse the work of Papageorgiou (1999) where the influence of human capital also depends on the education levels. Primary education influences positively final goods productions while R&D activities depend on post-primary education.

¹ “Education does not have to be justified solely on the basis of its effect on labour productivity. This was certainly not the argument given by Plato or de Tocqueville and need not be ours. Students are not taught civics, or art, or music solely in order to improve their labour productivity, but rather to enrich their lives and make them better citizens.” Weiss (1995, p.151) cited by Temple (2000, p.41).
Bibliographical References